Office of the Auditor General of Ontario

Annual Report

2015

Office of the Auditor General of Ontario

To the Honourable Speaker
of the Legislative Assembly

In my capacity as the Auditor General, I am pleased to submit to you the *2015 Annual Report* of the Office of the Auditor General of Ontario to lay before the Assembly in accordance with the provisions of section 12 of the *Auditor General Act*.

Bonnie Lysyk

Bonnie Lysyk
Auditor General

Fall 2015

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Bonnie Lysyk
Auditor General of Ontario

Reflections

Introduction

This Annual Report is the third one I have issued as the Auditor General of Ontario. As the report indicates, our work has delved into a wide variety of programs and services that affect Ontarians in every corner of the province. I am sure it will come as no surprise when I say that there are numerous areas where improvements are needed to enhance the quality and cost-effectiveness of government services. It might, however, come as a surprise when I say that we also noted things that the government does get right. But auditors' reports, by their nature, tend to focus on areas requiring improvements, and this report is no exception.

I am fortunate to have the support of the hard-working members of the Standing Committee on Public Accounts (Committee). I would also like to take this opportunity to salute the staff of my office for their excellent work and contributions to this report. As well, my office appreciates the ongoing co-operation of deputy ministers and their staff and that of the boards and senior management across the broader public sector.

As an independent Office of the Legislative Assembly, it is our job to report the results of our work to the Assembly, including the Committee, and to the citizens of Ontario. Our reports examine areas where the public sector and the broader public sector can make improvements to benefit Ontarians. We take considerable care in the conduct of our work, the drafting of recommendations, and the writing of fair, evidence-based reports.

The Committee, which includes MPPs from all parties in the Legislature, enjoys the respect of its peers across Canada for its work to ensure that issues in our reports are discussed and that the related recommendations are implemented, and for generating its own reports and recommendations to help ensure that Ontarians receive value for money and benefit from government initiatives, programs and spending.

This section of our report provides a high-level commentary about our audits this year and some of our key messages.

Public Accounts and Ontario's Growing Debt Burden

We provide some insight into the Public Accounts of Ontario in **Chapter 2**. I am pleased to report that for the 22nd year, the government of Ontario has obtained a "clean" audit opinion from the Auditor General on the province's consolidated financial statements.

As with last year's Annual Report, our key commentary in **Chapter 2** this year focuses again on

Ontario's growing debt burden, with a closer look at the implications of the debt on the province's finances. Although the debt has been growing at a somewhat lower rate than last year's estimates, it continues to rise. It will likely continue to rise even after a balanced budget is achieved, because of continuing infrastructure expenditures.

The negative impacts of a large debt burden include debt-servicing costs that divert funding from other programs, greater vulnerability to the impact of interest-rate increases, and potential credit-rating downgrades and changes in investor sentiment, which could make it more expensive for Ontario to borrow.

Consistent with our commentary last year, we take the view that the government should provide legislators and the public with long-term targets for addressing the current and projected debt, and we again recommend that the government develop a long-term debt-reduction plan outlining how it will achieve its own target of reducing net debt to GDP from its current 39.5% to the pre-recession ratio of 27%.

Value-for-money Audits

The 14 value-for-money audits in this year's Annual Report examine a variety of diverse subjects and fall into one of four broad thematic categories. These are:

- maximizing the value of programs that help vulnerable people;
- ensuring public safety;
- stewardship of spending and public resources; and
- delivering an essential service.

Maximizing the Value of Programs That Help Vulnerable People

As is the case with most developed modern societies, this province devotes substantial resources to the care of its most vulnerable citizens, an area that we focused on in this year's audits. Seven of our 14 value-for-money audits examine programs that directly assist children in need of protection, people receiving medical care and people on social assistance.

I believe it is fair to conclude that Ontario really does strive to help its most vulnerable, but our audits have also identified a number of areas that need improvement. In addition, our findings suggest that we don't necessarily have to spend more to do better; sufficient resources may already be in place, but governance, processes and operational challenges need to be addressed if we are to maximize the value we get from the dollars we are spending.

While all government services help people in one way or another, I want to highlight our audits of those programs and services directed at some of Ontario's most vulnerable: **Child Protection Services—Children's Aid Societies**; **Child Protection Services Program—Ministry**; **Student Transportation**; **Community Care Access Centres—Home Care Program**; **Local Health Integration Networks**; **Long-term-care Home Quality Inspection Program**; and the **Social Assistance Management System**.

Children's Services

Child Protection Services—Children's Aid Societies

Children suffering mistreatment and abuse in their own homes are a vital priority for any society; in Ontario, the law says each eligible child must receive all mandatory child-protection services, and waiting lists are not an option.

In 2014/15, the province transferred $1.47 billion to 46 not-for-profit Children's Aid Societies (Societies) across Ontario (47 effective April 1, 2015). About 43% of this funding provided services for children who had been removed from their homes and placed in the care of Societies, such as in foster, group or relatives' homes. Over the last five years, the number of children in care has dropped by more than 10%.

Societies initiate a child protection investigation any time there is a report of reasonable and probable grounds that a child is being abused or mistreated. We found that Societies did not investigate child protection cases on a timely basis and did not always complete all required investigative steps. None of the child protection investigations we reviewed at the Societies we visited were completed within the required 30 days of the Society receiving a report of child protection concerns. On average, the investigations were completed more than seven months after the Societies' receipt of the report. We also noted that in many cases involving children still in the care of their families, caseworkers visited the children and their families at home only once every three months, instead of once a month as required by protection standards.

Our audit found that Societies may be closing cases too soon. We reviewed closed files that had subsequently been reopened, and found that in more than half, the circumstances and risk factors that led to the reopening of the case were present when the case was closed.

We further noted that service levels also varied at the Societies, and the average number of family service cases that a case worker was responsible for each month ranged from eight to 32.

Child Protection Services Program

The Child Protection Services Program of the Ministry of Children and Youth Services (Ministry) is responsible for overseeing the Societies discussed above. However, we found that the Ministry cannot provide effective oversight because it lacks sufficient information about the quality of care provided by the Societies. The Ministry recently put in place new performance indicators, but had not established targets so that Societies could know what was expected of them and could then manage their resources accordingly. Having targets would allow them to determine whether performance was getting better and achieving expected results.

Ministry inspections of children's residences found repeated concerns that remained unresolved from one year to the next.

We also found that the Ministry needs to act on data showing that children in the care of Societies face challenges in the transition to independent living. For example, one survey found that in 2013, only 46% of youth in the care of Societies earned high school diplomas, compared to the Ontario average of 83%. As well, the Provincial Advocate for Children and Youth has identified that an estimated 43% of homeless youth have previous child protection services involvement, and that youth leaving the care of Societies are over-represented in youth justice, mental health and shelter systems.

We also noted problems with the implementation of a new centralized information system and that government funding to Societies was still not based on each Society's actual needs.

Student Transportation

The transportation of children to and from school requires close attention to ensure the highest levels of safety. Each day, 830,000 Ontario students travel to school and back on approximately 19,000 vehicles, at an estimated cost of $880 million for the 2014/15 school year. The organizations involved in providing these services are the ministries of Education and Transportation, the province's school boards, 33 transportation consortia formed by the school boards to plan and oversee services, and school bus operators contracted by the consortia to provide services.

We found the consortia need to do a better job of overseeing and monitoring driver competence, and the consortia and the Ministry of Transportation should improve the way they ensure that school vehicles are in good condition. We noted, for example, that there was little oversight of school bus operators, who were allowed to certify their own buses for mechanical fitness.

The government has not set guidelines for the reporting of school vehicle collisions and incidents, and few consortia were collecting this information to identify the causes of collisions and develop strategies to reduce them. Only limited information is being tracked by consortia on incidents that impact students, such as late buses and mechanical breakdowns of vehicles. This information could also be used to identify causes of such incidents and develop strategies to prevent them. With the limited comparative information available to us during our audit, we noted a 67% increase in such incidents between 2012/13 and 2013/14, from almost 35,000 incidents to nearly 58,000 incidents.

The Ministry of Education does not require bus safety training for students, and only about half of the consortia members had mandatory student school bus safety training.

Health Care Services

Community Care Access Centres—Home Care Program

Fourteen Community Care Access Centres (CCACs), each responsible for a distinct region of Ontario, spent $2.5 billion in the year ended March 31, 2015, to provide home care services to 713,500 people who might otherwise have had to stay in hospitals longer or in long-term-care homes. About 60% of the CCACs' home care clients were aged 65 or older in 2014/15.

We noted that issues raised in our 2010 audit of CCACs still exist today, including long wait times for some clients, and the fact that clients with similar conditions receive different levels of service depending where in Ontario they live.

Geography also played a role in determining how much service clients received, or even whether they received any service at all. We found that people with similar needs might be deemed qualified to receive services by one CCAC but not by others. Reasons for this include a lack of provincial standards to specify what level of service is warranted for different levels of client needs, and that per-client funding varies significantly among CCACs. Another issue related to the fact that CCACs are not allowed to run deficits, meaning that if a client needs services near the end of a CCAC's budget year, there may simply not be enough money to provide the service.

Local Health Integration Networks

Ontario's 14 Local Health Integration Networks (LHINs) are not-for-profit Crown agencies that each manage local health services in a distinct region of the province. LHINs provide $25 billion a year in funding to hospitals, long-term-care homes, CCACs and a variety of other community-based health organizations.

Our audit found that eight years after LHINs assumed their role in managing local health services, the Ministry of Health and Long-Term Care (Ministry) has not developed ways to measure how effectively LHINs are performing as planners, funders and integrators of health care.

The Ministry did establish a set of 15 indicators for LHINs that measure performance over time, but these produced disappointing results: province-wide, nine of the indicators show performance has stayed the same or deteriorated since 2010 or earlier, while improvements were recorded only in the remaining six indicators. For example, one indicator showed that patients who no longer needed acute care in hospital nonetheless used a higher percentage of hospital days in the past fiscal year than in 2007.

Other issues included a widening performance gap between individual LHINs between 2012 and 2015 in 10 of the 15 performance areas. For example, patients in the worst-performing LHIN waited 194 days to receive semi-urgent cataract surgery in 2012, which was five times longer than the wait time at the best-performing LHIN. The gap increased to 5½ times by 2015.

Long-term-care Home Quality Inspection Program

Ontario has 630 long-term-care homes that provide accommodation and care to about 77,600 people unable to live independently and/or who require round-the-clock nursing care in a secure setting. Most residents are over 65 years old, and many may be unable to advocate for themselves. Funding to these homes, through the LHINs, totalled $3.6 billion for the year ending March 31, 2015.

While the Ministry of Health and Long-Term Care (Ministry) made good on its commitment to do comprehensive inspections of all 630 homes (completed in January 2015), the backlog of inspections triggered by complaints and critical incidents more than doubled between December 2013 and March 2015. We also noted that 40% of high-risk complaints and critical incidents that should have triggered immediate inspections took longer than three days to initiate. Over a quarter of these cases took between one and nine months to be followed up on.

The Ministry also lacked an effective process for monitoring compliance orders that require follow-up. About 280 compliance orders, or two-thirds of those due to be completed in 2014, had not been followed up within the Ministry's own informal 30-day target.

We noted the Ministry took insufficient action against homes that repeatedly failed to comply with orders to fix deficiencies. For instance, in one region, homes failed to comply with almost 40% of the compliance orders issued by the Ministry in 2014.

Social Assistance

Social Assistance Management System

About 900,000 Ontarians receive social assistance because they are unemployed and/or have disabilities. Social assistance provides financial aid, health benefits, access to basic education, and job counselling and training to some of society's most vulnerable people to help them become as self-sufficient as possible. About 11,000 provincial and municipal employees rely on computerized systems to administer and deliver $6.6 billion a year in social assistance benefits.

In 2009, the province decided to replace its old social assistance information system with a new one, called the Social Assistance Management System, or SAMS. The new system became operational in November 2014, a year later than planned and about $40 million over budget, with more costs expected to be incurred. At its launch, SAMS had about 2,400 serious defects that caused numerous errors and required caseworkers to do significant extra and time-consuming work to address problems. This left them with less time to provide the full range of case management services to clients.

SAMS has thus far generated about $140 million in benefit calculation errors—$89 million in potential overpayments and $51 million in potential underpayments. SAMS also issued many letters and tax slips containing incorrect information, some of which may never be corrected. The impact of this on social assistance recipients was often dramatic, with people having to repay overpayments or having benefits incorrectly reduced.

While the Executive Committee responsible for overseeing the SAMS project knowingly assumed some risks by launching SAMS when it did not meet all of the pre-established launch criteria, it was not made aware of key information indicating there were more serious defects than expected, and that some crucial tests had produced results poorer than expected. We also found that SAMS was not piloted with any data converted from the previous system. According to the Office of the Provincial Controller, SAMS is the only computer system ever connected to the government's accounting system without first passing government-mandated payment testing. The Ministry does not anticipate SAMS becoming fully stable until spring 2016. Until then, the final cost of SAMS remains unknown.

Ensuring Public Safety

One of the fundamental duties of any government is to ensure public safety by overseeing the water supply, inspecting food, and enforcing safety laws and regulations covering everything from construction to transportation to law enforcement.

In this area, mistakes or inattention can mean injury or death, so there is little choice but to get it right the first time.

This year, we examined public safety from an environmental perspective by auditing the government's **Management of Contaminated Sites**.

Management of Contaminated Sites

The province has the legal responsibility under the *Environmental Protection Act* to clean up sites on property under its responsibility that have been contaminated by chemicals or other substances that are hazardous to human health or the environment. In Ontario, several ministries share this responsibility.

In order to carry out such work successfully, governments need robust systems for identifying contaminated sites, assessing the nature and extent of contamination, implementing measures to mitigate the risks posed to the public and the environment, and remediating the sites for future use.

Our audit found weaknesses in the government's processes for identifying, measuring and reporting on its contaminated sites. We found, for example, there was no centralized oversight of the various ministries' processes for managing their contaminated sites and estimating their liabilities in this area.

We also noted the province lacks a government-wide process for prioritizing high-risk sites in need of remediation; nor does it have an overall long-term plan or funding strategy in place for addressing the estimated $1.8 billion needed to remediate/clean up its contaminated sites.

Stewardship of Spending and Public Resources

Ontarians entrust two critical responsibilities to their provincial government: the authority to cost-effectively spend more than $130 billion a year, and the stewardship of natural resources in a way that generates appropriate revenues but remains environmentally sound.

In an effort to stimulate economic development and sustain employment, the government dispenses billions in grants and loans to businesses and universities, and it spends billions more to build and maintain public infrastructure. With respect to natural resources, it also oversees Canada's largest mining sector.

Our Annual Report this year examined these critical areas with audits of **Economic Development and Employment Programs**, **Infrastructure Planning**, **University Intellectual Property**, and **Mines and Minerals Program**.

Economic Development and Employment Programs

The Ministry of Economic Development, Employment and Infrastructure (Ministry) provides multi-year grants and interest-free loans to businesses to help support economic development and employment. Over the last 10 years, it has committed $2.36 billion in support to 378 projects of varying size, and has thus far disbursed $1.45 billion of the commitment.

We noted, however, that the Ministry has not attempted to measure whether the $1.45 billion it has provided to Ontario businesses since 2004 actually strengthened the economy or made recipients more competitive. The Ministry's new Strategic Investment Framework, as well, does not include a plan for measuring outcomes from future economic development and employment supports, including for its new Jobs and Prosperity Fund.

Our audit also determined that since 2010, about 80% of approved funding was made through unadvertised processes in which only selected businesses were invited to apply. The Ministry could not provide us with the criteria it used to identify those businesses it invited to apply.

Over the last 10 years, the government publicly re-announced almost $1 billion of economic development and employment support funding projects that had already been announced under different funding programs.

Infrastructure Planning

Ontario is served by a vast portfolio of public infrastructure—everything from bridges to hospitals to government buildings to universities—with a replacement value of close to $500 billion. The government oversees about 80% of these assets either directly or through broader public-sector organizations. Many of these assets are aging, with the average Ontario hospital being 45 years old and the average school 38 years old. Proper planning is required to ensure existing infrastructure is adequately maintained and new assets built as required.

We found that the government plans to devote two-thirds of its infrastructure spending over the next 10 years to building new assets, and one-third to maintaining and renewing existing properties—even though its own analysis indicated that it should be the other way around.

The province has no guidelines in place that specify the desired condition at which facilities should be maintained, and there is no consistency among ministries on how to measure the condition of assets such as highways, bridges, schools and hospitals.

Total provincial funding for the maintenance of all hospitals in the past fiscal year was $125 million, although an independent assessment identified annual funding needs of $392 million. Annual funding to maintain schools has ranged in the last five years between $150 million and $500 million, although another independent assessment said the province's schools need $1.4 billion a year to be kept in a state of good repair.

We also found that the government does not always allocate funding based on the current most urgent needs in the province, but tends to allocate it instead on a historical basis—that is, based on what a ministry or organization received in the past.

University Intellectual Property

In the last five years, the provincial government has invested an estimated $1.5 billion in university research programs, including funding to commercialize, or bring to market, intellectual property developed by universities.

Our audit found that the Ministry of Research and Innovation does not co-ordinate or track the province's total investments in research and innovation, nor has it measured the value created from these investments to determine whether value for money has been achieved. In addition, the province has virtually no rights to any of the intellectual property whose development it funds.

We also noted that while the government has, and follows, a comprehensive selection process for awarding university grants, it does not confirm that research outcomes align with those identified in the original grant proposals.

We further noted that while universities' technology transfer offices had experience assessing the commercialization potential of inventions, they could make improvements in measuring what value was achieved from the money invested in research.

Mines and Minerals Program

Ontario is Canada's largest producer of minerals, accounting for one quarter of all production in this country.

Our audit found that the Ministry of Northern Development and Mines (Ministry) has not been effective in encouraging mineral development in the province, with a 2014 Fraser Institute survey ranking Ontario ninth among all Canadian provinces and territories in investment attractiveness for mineral exploration. The Ministry's marketing strategies may be ineffective, and the Ministry is slow to make geoscience information available to the mining industry.

The Ring of Fire mineral find in a remote region of northern Ontario was identified in 2008 as North America's richest deposit of chromite, a mineral essential to the manufacture of stainless steel. Chromite and nickel deposits in the Ring of Fire have an estimated potential value of $60 billion.

We also noted that while the Ring of Fire deposits represent one of the province's greatest mining opportunities, particularly when mineral prices rebound, the area is still not close to having the basic infrastructure to encourage mining investments; nor are there detailed plans or timelines in place for developing the region.

Our audit also found that the Ministry lacks adequate processes to manage mine closure plans and the rehabilitation of 4,400 abandoned mines.

Delivering an Essential Service

At the end of the 19th century, Ontario began building what would become one of the world's leading electricity supply and transmission systems. However, today that system faces serious challenges.

It takes a great deal of expertise and financial resources to maintain an electricity system as big and as complex as Ontario's, and significant expertise and information to plan for its future well-being.

We examine two areas this year with audits of **Hydro One—Management of Electricity Transmission and Distribution Assets** and **Electricity Power System Planning**.

Hydro One—Management of Electricity Transmission and Distribution Assets

Hydro One Inc., one of the largest electricity delivery systems in North America, supplies power to most of Ontario's local distribution companies and large industrial customers, as well as to 1.4 million residential and business customers directly.

Hydro One's mandate is to be a safe, reliable and cost-effective transmitter and distributor of electricity. Instead, its customers have had to deal with worsening reliability and higher prices. Customers are experiencing more frequent power outages, largely due to an asset-management program that has not been effective or timely in maintaining assets or replacing aging equipment, and due to an untimely vegetation management program that has not been effectively reducing the number of outages caused by trees near power lines.

We noted, for example, that in the five years from 2010 to 2014, transmission system outages have been lasting 30% longer and occurring 24% more often. Hydro One's overall transmission-system reliability compares favourably to other Canadian transmitters, but has worsened in comparison to U.S. transmitters. Hydro One's distribution system has consistently been one of the least reliable among large Canadian electricity distributors between 2010 and 2014. In a scorecard published by the Ontario Energy Board in 2014, Hydro One was ranked the worst of all distributors in Ontario for duration of outages and second-worst for frequency of outages in 2013.

Hydro One's backlog of preventive maintenance orders on its transmission system equipment increased 47% between 2012 and 2014, which has contributed to an increased number of equipment failures.

The government passed the *Building Ontario Up Act* in June 2015 to permit the sale of up to 60% of the province's common shares in Hydro One, with the province retaining at least 40%. This legislation also removed the authority of the Office of the Auditor General to conduct value-for-money audits at Hydro One. As a result, this year's audit, which commenced prior to the tabling of the *Building Ontario Up Act*, will be the last on Hydro One to be done by this Office.

Electricity Power System Planning

An enormous amount of ongoing technical planning is required for Ontario to determine how it will meet its future electricity demands. This planning involves managing the long-term demand for electricity, and determining how to meet that demand through generation, transmission, distribution, exporting, importing and conservation of electricity.

Entities involved in Ontario's power system planning include the Ministry of Energy (Ministry), the Independent Electricity System Operator (IESO), the Ontario Energy Board (OEB), Ontario Power Generation (OPG), Hydro One, four other small licensed transmitters and approximately 70 local distribution companies. (The Ontario Power Authority, or OPA, was responsible for conducting independent planning for electricity generation, conservation and transmission in Ontario until its merger in 2015 with the IESO.)

Given the current comparatively high prices that consumers pay for electricity in Ontario, it is especially critical that Ontario determine how it will meet its future electricity demand in the most cost-effective manner. Ontario's residential and small-business electricity consumers have already had an 80% increase in the electricity portion of their bills, including Global Adjustment fees, between 2004 and 2014. In particular, Global Adjustment fees, which are the excess payments to generators over the market price, amounted to $37 billion from 2006 to 2014, and these payments are projected to cost electricity consumers another $133 billion from 2015 to 2032.

We found that the planning process had essentially broken down over the past decade, and Ontario's electricity power system did not have an overall technical plan in place for the last 10 years that was reviewed by the OEB, as required by legislation. In the absence of a technical plan, the Ministry has made a number of decisions about power generation that went against the OPA's technical advice and did not fully consider the state of the electricity market or the long-term effects. These decisions have resulted in significant costs to electricity consumers. For example, we calculated that electricity consumers have had to pay $9.2 billion more (the IESO calculates this amount to be closer to $5.3 billion in order to reflect the time value of money) for power from renewable energy electricity projects over the 20-year contract terms under the Ministry's current guaranteed-price renewable program than they would have paid under the previous procurement program.

Recurring Issues in This Year's Audits

Some of the 14 value-for money audits in this year's Annual Report also touch on issues that we have discussed in previous years. Two such issues this year are:

- access to equitable service regardless of location of residence; and
- better information needed to support decision-making

Access to Equitable Service Regardless of Residence Location

Ontarians likely assume they have a fundamental right to access equitable provincial government services regardless of where in Ontario they live. However, in this year's audits, we once again found repeated instances where a person's address can affect the quality and quantity of services they receive.

As noted in the earlier discussion of health-care services, geography affected the quality and the quantity of service provided by the province's Community Care Access Centres—Home Care Program and by the Local Health Integration Networks.

We also observed the standard of service offered by Ontario's Children's Aid Societies varied depending on the region being served and that there are differences in eligibility for Student Transportation services across the province.

This issue often arises when the government funds a program based on previous, or historical, levels rather than on a current assessment of actual need. Where appropriate, we recommend that ministries base funding decisions on actual measured needs.

Better Information Needed

It has been a long-standing contention of this Office that good decisions require reliable, objective and pertinent information underlying the decision-making process. We make the same observation this year, and we further note that some critical information does not even exist.

As noted earlier, the Ministry of Children and Youth Services lacks sufficient information about the quality of care provided by Children's Aid Societies to properly carry out its mandated oversight of the Societies.

We also found that Treasury Board Secretariat, responsible for Infrastructure Planning, generally evaluated infrastructure funding requests from each ministry on a stand-alone basis, and did little comparison at an overall provincial level to ensure the most pressing needs receive top priority for funding. The province also has no reliable estimate of its infrastructure deficit—the investment needed to rehabilitate existing assets to an "acceptable" condition—to better inform where spending should be directed.

Contaminated sites can pose a threat to public health and to the environment—but the government maintains no centralized list of such sites in its Management of Contaminated Sites. In addition, the government has not designated a central lead ministry to take responsibility for the clean-up of these sites and to advise the public of threats.

Follow-ups on the Value-for-money Audits of 2013

A key part of our Office's work is following up on the implementation of recommendations in our past audit reports. This year, we followed up on the implementation status of 61 recommendations, requiring 158 actions, from the value-for-money audits we conducted in 2013. We found that 76% of these actions have been either fully implemented or are in the process of being implemented. While the goal is full implementation, we noted positive intent by the various stakeholders to finish implementing the recommendations that are still in process. In particular, the following stand out as having fully implemented a significant portion of their recommendations from audits two years ago: the Ministry of Education with respect to our audit on Private Schools; Ontario Power Generation; ServiceOntario; and the Ministry of Health and Long-Term Care and the subject hospitals in our audit of Rehabilitation Services. Follow-up reports are discussed and presented in **Chapter 4**.

This year, we began to publish follow-ups to reports issued by the Standing Committee on Public Accounts, and have included these in **Chapter 7**. We followed up on the recommendations made in the following three Committee reports:

- Violence Against Women;
- Ontario Power Generation Human Resources; and
- Health Human Resources.

In total, the three reports contained 24 recommendations involving 45 actions. We found that 91% of these recommended actions had either been fully implemented or were in the process of being implemented.

Chapter 5—Toward Better Accountability

This year marks the introduction of a new section in our Annual Report that will highlight subjects related to accountability, governance and/or transparency, in addition to items raised in our value-for-money audits. We are using this section this year to highlight our examination of the timeliness of provincial agencies in publicly reporting on their activities through their annual reports.

Most provincial agencies are required to produce annual reports and submit them to their responsible minister within a specified time period. Ministers are then to review the reports and make them public, either by tabling them in the Legislature or by approving them for posting on an agency or government website. Based on our review of a sample of annual reports for 2014, we noted that timelines in legislation or memorandums of understanding for tabling annual reports varied and were seldom met.

As well, over the last three years, only a small proportion of provincial agencies' annual reports were tabled in the Legislature in accordance with the timetables specified in the Management Board directive in effect at the time. We reviewed the timeliness of such reporting for a sample of 57 agencies, and found that only 5% were tabled within six months after the agencies' fiscal year-end, while 68% were tabled more than 12 months after year-end, and 6% had not been tabled at all.

Our work further showed that the major delays were often in the ministers' offices. A new Management Board directive that became effective this year increased the content requirement for annual reports, but no longer requires a minister to table a report in the Legislature within 60 days of receiving it when the Legislature is in session, or file a report with the Clerk of the Legislature within 60 days of receiving it when the Legislature is not sitting.

Acknowledgments

I want to thank the many people in the public sector and the broader public sector who were involved in our work for their assistance and co-operation in the completion of this year's audits. We look forward to continuing to serve the Legislative Assembly and, through it, the citizens of Ontario.

Sincerely,

Bonnie Lysyk
Auditor General of Ontario

Our Team

It takes a massive effort by many people to perform the research, audit, writing and administrative-support work required to produce an Annual Report of this scope and substance. The following is a list of the people with our Office who worked to produce this Report:

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Summaries of Value-for-money Audits

3.01 Community Care Access Centres—Home Care Program

Ontario's 14 Community Care Access Centres (CCACs) are responsible for providing home-care services to Ontarians who might otherwise need to stay in hospitals or long-term-care homes.

Home care is publicly funded by the Ministry of Health and Long-Term Care (Ministry). In order to be eligible for home-care services, a person must be insured under the Ontario Health Insurance Plan. Referrals for home-care services can be made by hospitals, family physicians, or clients and/or their families. Each CCAC is accountable to one of the province's 14 Local Health Integration Networks (LHINs), which are, in turn, accountable to the Ministry.

In recent years, home-care clients have had increasingly complex medical and social-support needs, due mainly to the fact that, since 2009, Ontario hospitals have been expected to discharge most patients who do not really need to be in acute-care settings. In the year ending March 31, 2015, 60% of home-care clients were aged 65 and over.

CCACs assess people to determine if their health needs qualify them for home-care services, and then develop care plans for those who qualify. CCACs contract with about 160 private-sector, for-profit or not-for-profit service providers to provide home-care services directly to clients.

In the fiscal year ending March 31, 2015, Ontario spent $2.5 billion to provide home-care services to 713,500 clients. This represents a 42% increase in funding and 22% increase in the number of clients compared to 2008/09, a year before our last audit of home-care services in 2010.

From 2005/06 to 2014/15, overall CCAC funding (for home care and other services) has increased by 73%, but has remained a relatively constant 4% to 5% of overall provincial health spending. The Ministry has recognized the value of home and community care, and it has issued a number of reports highlighting the importance of strengthening this sector.

Despite these positive efforts, some of the issues we raised in our 2010 audit of the home-care program still exist. For example, clients still face long wait times for personal-support services, and clients whose needs have been similarly assessed still receive different levels of service depending on where in Ontario they live.

We found that a person assessed to receive services by one CCAC might not receive services at another. A number of factors influence this, such as the lack of provincial standards that specify what level of service is warranted for different levels of clients' needs, and the fact that per-client funding varies significantly among CCACs despite reforms to the funding formula that began in April 2012. As a result, to stay within budget, each CCAC exercises its own discretion on the types and levels of services it provides—thereby contributing to significant differences in admission criteria and service levels between CCACs. Further, because CCACs cannot run deficits, the time of year a client is referred, and their level of need, can also influence whether they receive services or not.

Because the availability of community support services such as assisted living and respite care varies across the province (many community support service agencies were historically set up by volunteers to serve local needs; such agencies are not prevalent in rural and northern areas), some CCACs may be required to provide more services to their clients when no other agencies can provide the necessary additional support.

Until these overarching issues are addressed, clients in Ontario will continue to receive inequitable home-care services. Our specific observations include the following:

- The caseloads of CCAC workers who co-ordinate clients' care vary significantly from one CCAC to another, and within the same CCAC. In two of the CCACs we visited, caseloads did not comply with guidelines developed by the Ontario Association of Community Care Access Centres. For example, one CCAC's care co-ordinators on average carried 30% larger caseloads for chronic clients than recommended.
- For budgetary reasons, CCACs are not able to provide personal support services to the maximum levels allowed by law. Care co-ordinators still, for the most part, assess clients to receive up to 60 hours of personal support services per month versus 90 hours as permitted by law. Furthermore, Ontario's regulation is silent on the minimum amount of services that can be provided. As a result, there is no minimum service level requirement for personal support services that CCACs must provide to their clients—for instance, a specified minimum number of baths per week.
- At the three CCACs we visited, 65% of initial home-care assessments and 32% of reassessments for chronic and complex clients were not conducted within the required time frames in 2014/15. Some clients were not assessed or reassessed in almost one year, and some beyond a year.
- Not all care co-ordinators maintained their proficiency in, and some were not regularly tested on, the use of assessment tools.
- CCACs do not consistently conduct site visits to ensure that the service providers with whom they have contracted are complying with contract requirements. For example, none of the three CCACs we visited had verified that service providers accurately and completely reported incidents of missed visits.

Our recommendations included that the Ministry explore better ways to apply the funding reform formulas to address the funding inequities; develop standard guidelines for prioritizing clients for services, and monitor for compliance to those guidelines; assess the types of caregiver supports and initiatives available in other jurisdictions, and consider approaches to use in Ontario; require all health-service providers to upload complete assessment information on a common system; and make more CCAC results on performance measures publicly available.

We also recommended that CCACs assess and reassess clients within the required time frames; require that all CCAC care co-ordinators comply with the minimum number of assessments per month and be tested on the use of the assessment tools each year, and monitor compliance to that requirement; reassess and, where necessary, revise current guidelines for care co-ordinator caseload sizes; and develop performance indicators and targets and collect from contracted service providers relevant data that measure client outcomes.

This report contains 14 recommendations, consisting of 31 actions, to address our audit findings.

3.02 Child Protection Services—Children's Aid Societies

Child protection services in Ontario are governed by the *Child and Family Services Act* (Act), the purpose of which is to promote the best interests, protection and well-being of children. The Ministry of Children and Youth Services (Ministry) administers the Child Protection Services Program, and contracts with 47 local not-for-profit Children's Aid Societies (Societies) that deliver child protection services throughout Ontario.

Ministry transfer payments to Societies to fund their expenditures were $1.47 billion in the 2014/15 fiscal year. About 40% of Societies' expenditures were for services for children who had been removed from their homes and placed in the care of Societies in foster, group or relatives' homes. Over the last five fiscal years, the number of children in the care of Societies has declined by more than 10%.

Societies are independent legal entities, each governed by an independent volunteer board of directors. By law, each Society is required to provide all mandatory child protection services to all eligible children. In other words, waiting lists are not an option for child protection services. Societies initiate a child protection investigation for any reported concern where there are reasonable and probable grounds that a child may need protection from abuse or mistreatment.

Overall, our audit found that there were differences in the levels of service and support provided by Societies, and that workers at the various Societies had vastly different caseloads. The average number of family service cases per worker ranged from eight to 32 per month. These differences could affect the consistency of care and support received by children and families across the province.

Our significant observations include the following:

- Societies may be closing child protection cases too soon. In more than half the files we reviewed that subsequently were reopened, the circumstances and risk factors that were responsible for the reopening of the case had been present when the case was initially closed.
- Societies did not investigate child protection cases on a timely basis and did not always complete all required investigative steps. None of the child protection investigations we reviewed at the Societies we visited were completed within the required 30 days of the Society receiving the report of child protection concerns. On average, the investigations were completed more than seven months after the Society's receipt of the report. As well, Safety Assessments to identify immediate safety threats to the child were either not conducted or not conducted on time.
- Societies did not always conduct timely home visits and service plan reviews in cases involving children still in the care of their families. In more than half the files we reviewed, caseworkers visited the children and their families at home only every three months, instead of every month as required by protection standards.
- Societies did not always complete Plans of Care—designed to address, among other things, a child's health, education and emotional and behavioural development—on a timely basis.
- Societies did not always do child protection history checks on people involved with children. This increases the risk that children are left in the care of people with histories of domestic violence or child abuse.
- The Continued Care and Supports for Youth (CCSY) program is not achieving its objective of preparing youth for transition out of care. In almost half the files we reviewed, there was no evidence the youths were involved in reasonable efforts to prepare to transition to independent living and adulthood.

We recommended that Societies meet all legislative and program requirements when delivering protection services; ensure that protection cases are not closed prematurely; assist youth to transition to independent living and adulthood; develop standard caseload benchmarks; and ensure that funding is used to appropriately to provide direct services to children and families while identifying opportunities to improve service delivery.

This report contains six recommendations, consisting of eight actions, to address our audit findings.

3.03 Child Protection Services Programs—Ministry

Child protection services in Ontario are governed by the *Child and Family Services Act* (Act), the purpose of which is to promote the best interests, protection and well-being of children. The Ministry of Children and Youth Services (Ministry) administers the Child Protection Services Program, and contracts with 47 local not-for-profit Children's Aid Societies (Societies) that deliver child protection services throughout Ontario. Some of those who receive services are Crown wards (children placed in the care of a Society and living in a group home or foster home, or with next of kin).

Services provided under most other programs administered by ministries are subject to the availability of funding; however, by the law that governs the Child Protection Services Program, each Society is required to provide all mandatory child protection services to all eligible children. In other words, waiting lists are not an option for child protection services.

Ministry transfer payments to Societies to fund their expenditures were $1.47 billion in the 2014/15 fiscal year. Until 2012/13, transfers to Societies were based on historical funding. As of 2013/14, however, Ministry funding has been calculated using a formula based on the economic situation of the community in which a Society is located and on its volume of cases. However, Societies are not allowed to spend more than they receive in funding, and the new funding model still does not provide funding based on Societies' service needs.

Ontarians expect that the child protection services will ensure that children and their families receive the care and support they need. The Ministry must have sufficient oversight processes in place to help Societies meet their mandated requirements, so that children and families get suitable protection services when they need them.

We found that the Ministry cannot provide effective oversight of Societies because it does not have enough information about the protection services the Societies are providing to most children they serve. The Ministry has not established targets to allow it to measure the progress of Societies in meeting the performance indicators the Ministry has recently put in place.

The Ministry also needs to better ensure that the pressures Societies face to not exceed their funding allocation, as well as problems associated with implementing the new, centralized Child Protection Information Network system, are not adversely affecting their ability to deliver child protection services.

Additional significant issues include the following:

- The Ministry needs to act on data that shows that young people who have received protection services face significant challenges when transitioning to independent living. For example, a survey by the Ontario Association of Children's Aid Societies found that in 2013, only 46% of youth in the care of Societies earned high school diplomas, compared to the Ontario average of 83%. As well, the Provincial Advocate for Children and Youth has identified that an estimated 43% of homeless youth have previous child protection services involvement, and that youth leaving the care of Societies are over-represented in youth justice, mental health and shelter systems.
- Annual reviews of Crown ward files to assess whether their needs have been addressed have identified concerns that have not been addressed from one year to the next. Issues have included failing to develop a plan of care that identifies the child's strengths, needs and goals and that is updated to reflect the child's progress.

- The Ministry's oversight of non-Crown wards who receive protection services is limited as it does not review the files of non-Crown wards.
- Ministry licensing inspections of children's residences found repeated concerns that were not addressed.
- The Ministry's Child Protection Information Network (CPIN) system is currently not delivering on its promised benefits despite significant investments in time and money. Although the Ministry expected to have CPIN in use by all Societies by the end of the 2014/15 fiscal year at a total cost of $150 million, as of the end of 2014/15, CPIN has been deployed in just five of the province's 47 Societies. The Ministry's revised plan hopes to have CPIN deployed to the remaining Societies by the end of the 2019/20 fiscal year at an estimated total cost of $200 million.

In our report, we recommend that the Ministry appropriately monitor and asses the performance of Societies and identify opportunities to improve protection services; consider the feedback they are receiving for extending child protection services to all children under the age of 18; review Societies' files for non-Crown wards in receipt of child protection services; ensure that funding provided to Societies is commensurate with each Society's needs; work with Societies to identify opportunities for improving efficiency of their service delivery; and determine the cost of CPIN implementation to the remaining Societies, the impact of such costs on Societies' ability to deliver mandated child protection services within their budget allocations and how such costs should be funded.

This report contains nine recommendations, consisting of 12 actions, to address our audit findings.

3.04 Economic Development and Employment Programs

To help support economic development and employment, the provincial government provides multi-year grants and interest-free loans to businesses for projects ranging from expansion to export growth to research and development.

Several ministries deliver these supports, but the funds that focus entirely on existing businesses flow through the Ministry of Economic Development, Employment and Infrastructure (Ministry), formerly the Ministry of Economic Development, Trade and Employment.

From 2004 to May 31, 2015, the Ministry had committed $2.36 billion—$1.87 billion in grants and $489 million in loans—to 374 projects through seven of its funds, each of which has a distinct mandate and focuses on a particular industry or geographic area of the province. Of that amount, the Ministry disbursed $1.45 billion, and the remaining $913 million was to be paid out over the next 11 years, as the projects are being completed and if they meet job and investment targets. In the last decade, the Ministry's seven funds have assisted projects involving information and communication technology, clean/green technology, financial services, life sciences, and projects in the automotive, manufacturing, and research and development sectors.

The Ministry generally performed well with respect to the approval process in administering and overseeing its own economic-development and employment-support programs. In addition, the projects have had success in leveraging investments by businesses in Ontario and in creating and/or retaining jobs.

In January 2015, the government announced it would fold many existing programs into a new $2.7-billion Jobs and Prosperity Fund, with $2 billion administered by the Ministry and $700 million by other ministries.

Following are some of our significant observations:

- The Ministry has not attempted to measure whether the almost $1.5 billion it has provided to Ontario businesses since 2004 has actually strengthened the economy or made recipients of the money more competitive. As well, the Ministry's new Strategic Investment Framework does not include a plan for measuring outcomes from future economic development and employment supports, including for its new Jobs and Prosperity Fund. Although the Ministry measures actual investment achieved, actual jobs created and retained, total contracted investment leveraged and total cost per job per year, it has not set a goal for minimum GDP growth or unemployment rate reductions, either at the local level or for the overall economy. Other provinces have set such goals to guide their economic development efforts.

- Even though Ontario, like most other provinces, has shown improved economic performance in each of the last four years, the need for the Ministry to ensure its programs benefit the economy is still important. Many expert reports question whether such programs and funding actually achieve any economic benefits.
- While the Ministry recognizes the economic benefits of promoting key regions and establishing industry "clusters"—geographic concentrations of interconnected businesses, suppliers, and associated institutions in a particular field—it is just beginning to develop strategies for its involvement in each region and cluster that identifies key strengths and barriers or weaknesses that it can help to address.
- Expert reports over the last several years have also highlighted the importance of small- and medium-sized businesses, which account for about one-third of Ontario's GDP. While 40% of the number of projects funded by the Ministry related to existing small- and medium-sized businesses, the dollar value of that support amounted to less than 4% of its total funding. The Ministry has neither assessed how many small- and medium-sized businesses lack access to supports, nor made it clear why its funding is targeted primarily to large businesses.
- The Ministry's mandate is to support a strong, innovative and competitive economy that provides jobs and prosperity for all Ontarians; however, nine other ministries independently also provide similar funding to businesses. As such, the Ministry does not have the authority to co-ordinate with other ministries, which deliver $1.8 billion of additional economic development and employment support funding. Although the new Strategic Investment Framework outlined an "all of government" approach, each of the other nine ministries still continues to deliver support funding without the overall co-ordination that could ensure the best use of funds. Expert reports have recommended this type of funding be consolidated across ministries to achieve administrative efficiencies and help government target funding to certain sectors or areas of the province.
- There is a need for more transparency in how invitation-based funding is awarded. Since 2010, about 80% of approved funding was committed through non-publicly advertised processes, in which only select businesses were invited to apply. The Ministry determined internally which businesses were to be invited, but it could not provide us with the criteria it used to identify the businesses it invited to apply, or a list of those whose applications were not successful.
- Past funding was often awarded without a proper needs assessment. The Ministry almost never assessed whether businesses needed public funding in order to achieve the proposed project. Furthermore, some projects were approved for funding even though there was evidence they would have proceeded without government help.
- The Ministry does not monitor recipients to see whether jobs that are created or retained during the life of the funding contract continue after the contract expires. Contracts are normally for five years, but the Ministry has

no information on whether the jobs the recipient offered to create or retain during those five years are maintained afterwards.
- Over the last 10 years and as recently as January 2015, the government publicly announced almost $1 billion more in economic development and employment support funding projects by re-announcing the same available funding under different fund programs.

Among other things, we recommended that the Ministry develop a comprehensive strategy for economic development and employment that establishes targets by industry sector and geographic region; seek to become the lead ministry responsible for overseeing and achieving a comprehensive provincial strategy for economic development and employment programs; add greater transparency in accepting applications and selecting the qualifying businesses to which it provides funding; and expand performance measures beyond investment and employment results to include whether benefits to the economy continue after project completion.

This report contains nine recommendations, consisting of 17 actions, to address our audit findings.

3.05 Electricity Power System Planning

Electricity power system planning involves managing the long-term demand for electricity, and determining how to meet that demand through generation, transmission, distribution, exporting, importing and conservation of electricity.

In Ontario, entities involved in province-wide power system planning include the Ministry of Energy (Ministry), the Independent Electricity System Operator (IESO), the Ontario Energy Board (OEB), Ontario Power Generation (OPG), Hydro One, four other small licensed transmitters and approximately 70 local distribution companies.

The importance of planning is reflected in provincial legislation: The *Electricity Act, 1998*, was amended in 2004 to require the Ontario Power Authority, or OPA (which was subsequently merged with the IESO in 2015), to conduct independent planning, prepare a detailed technical plan and submit it to the OEB for review and approval to ensure that it is prudent and cost-effective.

However, no such plan has ever been approved in the last 10 years as required by the legislation to protect consumers' interests. Instead, the Ministry has issued two policy plans in 2010 and 2013 that were not subject to OEB review and approval. While these policy plans provided some technical information, we found that they were not sufficient for addressing Ontario power system's needs and for protecting electricity consumers' interests.

While the checks and balances of the legislated planning process were not followed, the Ministry made a number of decisions about power generation through 93 ministerial directives and directions issued to the OPA from 2004 to 2014. Some of these went against the OPA's technical advice and did not fully consider the state of the electricity market or the long-term effects. These decisions resulted in significant costs to electricity consumers. From 2006 to 2014, the amount that residential and small business electricity consumers paid for the electricity commodity portion of their bill (including Global Adjustment fees) increased by 70%, from 5.32 cents/kWh to 9.06 cents/kWh. In particular, Global Adjustment fees, which are the excess payments to generators over the market price, amounted to a total of $37 billion from 2006 to 2014. These payments are projected to cost electricity consumers another $133 billion from 2015 to 2032.

Among our significant observations:

- We calculated that electricity consumers have had to pay $9.2 billion more (the IESO calculated this amount to be closer to $5.3 billion, in order to reflect the time value of money) for renewables over the 20-year contract terms under the Ministry's current guaranteed-price renewable program than they would have paid under the previous procurement program.

- In January 2010, the OPA expressed concerns to the Ministry after the Lower Mattagami hydro project's estimated costs increased by $1 billion from the initial estimate. The Ministry directed the OPA to proceed in order to meet the Ministry's renewable targets, and to invest in Aboriginal communities and the economy of northern Ontario. The average cost for power from this facility is $135/MWh while the average cost of electricity produced at two other recent hydro projects outside of the Mattagami River area in Ontario is $86/MWh.
- The Ministry directed the OPA to convert a Thunder Bay coal plant into a biomass facility despite OPA's advice that the conversion was not cost effective. The cost of electricity from this facility is $1,600/MWh—25 times higher than the average cost at other biomass facilities in Ontario.
- The Ministry directed the OPA to cancel contracts for two gas plants planned for the southwest Greater Toronto Area, where the need for them was greatest, and relocate them to Napanee and Lambton. Our 2013 special reports on the Oakville and Mississauga power plants set cancellation costs at $950 million.
- Ontario currently has an oversupply of electricity, with its available supply exceeding its maximum hourly consumption by an average of 5,100 MW per year from 2009 to 2014—an amount approximately equal to the total existing power generation capacity of the province of Manitoba. Meanwhile, Ontario has spent approximately $2.3 billion in conservation programs to 2014, and is committed to spend another $2.6 billion over the next six years. While we recognize that conservation efforts require sustained commitment, investing in conservation during a time of surplus actually contributes to expensive electricity curtailments and exports.
- Due to the excessive surplus, Ontario had to pay generators $339 million from 2009 to 2014 to reduce the production of 10.9 million MWh of surplus electricity, and $3.1 billion more to produce 95.1 MWh of exported power in excess of what Ontario received in export revenue. As well, there were almost 2,000 hours in which the hourly Ontario electricity market price was negative, and Ontario paid other exporters a net total of $32.6 million to take our power.
- We found that the lack of a structured, co-ordinated regional planning process has had ongoing negative effects on the performance of transmission system, including reliability concerns and congestion issues that cost a total of $407.6 million in payments to generators.

Our audit report recommends, among other things, that the Ministry require full technical plans to be prepared and submitted to the OEB for review and approval; regularly engage with the IESO, OPG, Hydro One, approximately 70 local distribution companies, and other technical experts to consider different scenarios and evaluate cost effectiveness during the decision making process; assess the effects of conservation and its impact on electricity costs during surplus generation periods; evaluate conservation and demand management programs to ensure they meet cost effective tests; and work with IESO, Hydro One and other small transmitters to minimize any unnecessary cost to electricity consumers due to transmission reliability concerns and congestion issues.

This report contains five recommendations, consisting of 16 actions, to address our audit findings.

Most of the Ministry's responses to our recommendations refer to recently introduced draft legislation (Bill 135). Our office is not in a position to comment on the merits of this draft legislation; nor can we assess at this point in time whether the changes proposed in the draft legislation would meet the intent of our recommendations.

3.04 Hydro One—Management of Electricity Transmission and Distribution Assets

Hydro One Inc. owns one of the largest electricity delivery systems in North America, operating in three main areas that involve:

- moving electricity from power generators to large industrial customers and to most of Ontario's local distribution companies through an extensive high-voltage transmission network;
- operating, through wholly owned subsidiaries, its own distribution system that serves about 1.4 million residential and business customers; and
- managing a telecommunications system that monitors and remotely operates its transmission equipment.

Hydro One's total revenues were $6.548 billion in the year ending December 31, 2016, while operating and other costs were $5.801 billion, for a net income of $747 million. Hydro One's transmission, distribution and telecommunication net assets were valued at about $18.2 billion.

The government passed the *Building Ontario Up Act* (Act) in June 2015 to permit the sale of up to 60 per cent of the province's common shares in Hydro One (the province was the sole shareholder), with no other single shareholder allowed to hold more than 10 per cent of the total equity. The province then released an initial public offering of about 15 per cent of the common shares in November 2015.

Effective December 4, 2015, the Act also removed the ability of our Office to conduct and report on value for money audits on Hydro One. As a result, this audit of Hydro One's management of electricity transmission and distribution assets, which commenced prior to the tabling of the Act, will be the last value for money audit on Hydro One released by this Office.

Hydro One's mandate is to be a safe, reliable and cost effective transmitter and distributor of electricity. However, Hydro One's transmission and distribution system reliability is worsening while costs to maintain and improve it are increasing and customers are experiencing more frequent power outages. Hydro One spent over $1 billion annually from 2012 to 2016 on capital projects to sustain its transmission and distribution systems.

Some of the more significant issues we noted related to its transmission system included:

- Overall, Hydro One's transmission system reliability has worsened in the five years from 2012 to 2016, with outages lasting 30% longer and occurring 20% more often. In the same time period, Hydro One's spending to operate the transmission system and replace assets that are old or in poor condition increased by 33%. It should be noted that Hydro One's overall transmission system reliability still compares favourably to other Canadian transmitters, but has worsened in comparison to U.S. transmitters.
- Hydro One's backlog of preventive maintenance orders on its transmission system equipment increased 47% between 2013 and 2016, which has contributed to equipment failures.
- Hydro One failed to replace 18 of the 38 transmission transformers it reported in very poor condition in its 2013–14 rate application to the Ontario Energy Board (OEB). Subsequently, over the same two-year period, it replaced 17 other transformers reported in better condition. We found that two of the transformers rated in very poor condition in the OEB rate application, but not replaced, failed and resulted in outages to customers lasting 208 minutes in 2013 and 220 minutes in 2015.
- The risk of power failures can increase without an effective program for replacing transmission assets that have exceeded their planned useful service life. The number of key transmission assets, such as transformers, circuit breakers, and wood poles, in service beyond their normal replacement date ranged

from 8% to 26%. Replacing these assets will eventually cost Hydro One an estimated $4.472 billion, or over 600% more than its $621-million capital sustainment expenditure for 2014.

Some of the more significant issues we noted related to its distribution system included:

- Hydro One's distribution system has consistently been one of the least reliable among large Canadian electricity distributors between 2010 and 2014. The average duration of outages reported by members of the Canadian Electricity Association (CEA) between 2010 and 2014 was about 59% less than Hydro One over the same period, while average frequency of outages among CEA members was 30% lower.
- The principal cause of distribution system outages from 2010 to 2014 was broken power lines caused by fallen trees or tree limbs. Hydro One operates on a 9.5-year vegetation-management cycle, while 14 of its peer utilities operate on an average 3.8-year cycle. Hydro One's own analysis indicated that the vegetation-management work it did in 2014 cost $84 million more than it would have under a four-year cycle, and customers would have experienced fewer outages caused by trees.
- Hydro One installed 1.2 million smart meters on its distribution system at a cost of $660 million, but it has not used the related software and capabilities to improve its response times to power outages. Currently, smart meters are used by Hydro One predominantly for billing, and not to remotely identify the location of power outages before a customer calls to report the outage. Such information from smart meters would make dispatching of work crews timelier and more efficient, leading to improved customer service and cost savings.

We recommended that Hydro One should for its transmission system set multi-year targets and timetables for reducing the frequency and duration of power outages to improve transmission system reliability and availability; eliminate its growing preventive maintenance backlog; target assets for replacement that have the highest risk of failure, especially those rated as being in very poor condition and that have exceeded their planned useful service life; and provide accurate information to the Ontario Energy Board on its asset replacement activities.

For its distribution system, we recommended it establish more ambitious goals, targets and benchmarks for system reliability performance; and lower its costs and improve reliability by shortening its vegetation (forestry) management cycle.

Given that our Office will no longer have jurisdiction over Hydro One as of December 4, 2015, we have requested that the Ontario Energy Board take the observations we have made in this report into consideration during its regulatory processes.

This report contains 17 recommendations to Hydro One, consisting of 37 actions, to address our audit findings.

3.07 Infrastructure Planning

Ontario's portfolio of public infrastructure includes highways, bridges, transit systems, schools, universities, hospitals, government buildings, and a wide variety of other assets. It has a replacement value of close to $500 billion.

The Ontario government oversees about 40% of these assets, either directly or through broader-public-sector organizations such as school boards and hospitals.

Much of Ontario's current stock of infrastructure was built between the end of the Second World War and the 1970s. Infrastructure spending slowed between 1980 and 2005, but picked up again in the last 10 years.

Many infrastructure assets are older. The average age of hospitals in Ontario, for example, is 45 years, while the average of schools is 38 years. More than half of all hospitals and schools in the province are at least 40 years old.

In the last 10 years, Ontario's largest infrastructure spending has been in the transportation sector, followed by health and education. Over those 10 years, for example, the province spent nearly $20 billion on transit projects, more than $23 billion on roads and bridges, nearly $25 billion on major hospital and other health-care projects, and nearly $21 billion on schools and post-secondary facilities. Infrastructure spending includes preserving or expanding existing assets, and building new ones.

Proper planning is necessary to ensure infrastructure needs are identified and existing infrastructure is adequately maintained and renewed for public use. Such planning must take into account the benefits of infrastructure investment, the risks to the public when needed facilities are not built or are allowed to deteriorate, and the resources required to meet future demand.

The Treasury Board Secretariat (Secretariat), responsible for reviewing infrastructure funding requests from ministries, generally evaluated each ministry on a stand-alone, historical basis, and did no comparison at an overall provincial level to ensure the most pressing needs receive top priority for funding.

Some of our significant observations include the following:

- Two-thirds of funding is planned to go toward building new assets and one-third to repairs and renewals of existing facilities, even though the province's analyses has determined that it should be the other way around in order to adequately maintain and renew existing public infrastructure.
- There are no guidelines for the desired condition at which facilities should be maintained, and there is no consistency among ministries on how to measure the condition of asset classes such as highways, bridges, schools, and hospitals.
- Ontario lacks a reliable estimate of its infrastructure deficit—the investment needed to rehabilitate existing assets to an "acceptable" condition—to better inform where spending should be directed.
- An independent assessment calculated that the Ministry of Education needs $1.4 billion a year to maintain schools in a state of good repair. However, actual annual funding in the last five years has ranged from $150 million to $500 million.
- A similar assessment done for the Ministry of Health and Long-term Care identified annual funding needs of $392 million for the province's hospitals. However, funding since 2010/11 was just $56 million, and rose to $125 million in 2014/15.
- Existing funding does not address significant pressures faced by ministries for new projects. For example, there are 100,000 students in temporary accommodations (portables) and about 10% of schools in the province are operating at over 120% capacity. Although portables are needed to provide some flexibility to address changes in school capacity, existing funding is not sufficient to rehabilitate the existing portfolio and to replace these structures with more permanent accommodations in some cases.
- The Secretariat did not know how well individual projects were managed. Our review of reports from the ministries to the Secretariat noted that information is generally reported at a program level only, and not on individual projects within a program. Instead, the Secretariat relies on ministries to monitor individual projects.

Our audit report recommended, among other things, that the Secretariat working with ministries better identify, measure and quantify the province's infrastructure investment needs; ensure that ministries are putting forward viable strategies that address bridging the gap between actual infrastructure needs and available funding; ensure that funding allocations strike an appropriate balance between funding new projects versus funding repair/rehabilitation and replacement of existing assets to minimize lifecycle costs; and require ministries to report information on project cost overruns and delays to monitor the status of significant infrastructure projects under way in the province.

This report has six recommendations, containing nine actions, to address our audit findings.

3.08 Local Health Integration Networks

Ontario's 14 Local Health Integration Networks (LHINs) were established by the *Local Health System Integration Act, 2006* (Act). LHINs began assuming their role in managing local health services in April 2007, under the responsibility of the Ministry of Health and Long-Term Care (Ministry), replacing the Ministry's seven regional offices and 16 district health councils. By July 2010, LHINs had fully assumed their role over public and private hospitals, long-term care homes, Community Care Access Centres, community mental health and addiction agencies, community support service agencies, and community health centres. In the year ending March 31, 2015, LHINs provided health-care organizations within these six sectors a total of about $25 billion in funding, which represents slightly more than half of the provincial health-care budget for that year.

Each LHIN is a not-for-profit Crown agency that covers a distinct region of Ontario. The regions vary in size, have different service delivery issues and health-service providers, and their populations have different health profiles. In the fiscal year 2014/15, the operational expenditures of the 14 LHINs totaled $90 million, or about 0.4% of the Ministry's $25 billion in LHIN funding, most of which was destined to health-care organizations that LHINs fund.

Under the Act, LHINs are responsible for "[achieving] an integrated health system and [enabling] local communities to make decisions about their local health systems." The Act sets out the LHINs' obligation to plan, fund and integrate local health systems.

Our audit found that the Ministry has not clearly determined what would constitute an integrated health system, or by when it should be achieved. As well, the Ministry has not developed ways to measure how effectively LHINs are performing as planners, funders and integrators of health care.

If achieving their mandate to provide the right care at the right time consistently throughout the health system means that LHINs should have met all expected performance levels that are measured, then they have not succeeded. While province-wide performance in six of the 15 areas measured has improved from when the LHINs were created to 2015, in the remaining nine areas, performance has either stayed relatively consistent or has deteriorated since 2010 or earlier. For instance, a greater percentage of hospital days were used by patients who no longer needed acute care in a hospital setting for the year ending March 31, 2015, compared to 2007.

Most LHINs performed below expected levels in fiscal 2014/15; on average, LHINs achieved their respective local targets in only six of 15 performance areas. The best met local targets in 10 areas and four LHINs met only four. Provincial results that include all 14 LHINs show that only four of 11 provincial targets that measure long-term goals were met.

Other significant observations included the following:

- Due to inconsistent and variable practices that still persist across the province, patients face inequities in accessing certain health services. These variances mean that depending on where they live, some people experienced better access to better integrated health care than others, and some people were not receiving health care in the setting that best meets their health needs and, sometimes, at a much higher cost than necessary.
- The Ministry takes little action to hold LHINs accountable when they do not meet targets. This has contributed to performance issues persisting for years. For instance, one of the

four LHINs we visited did not meet the wait-time target for MRI scans in six of the eight years leading up to March 31, 2015. Another did not meet its hip-replacement wait-time target in seven of the last eight years. When an expected performance was not achieved in one year, the Ministry made the target more lax for the following year for some LHINs; yet, for other LHINs, the Ministry kept the target the same or made it more stringent.

- The performance gap among LHINs has widened over time in 10 of the 15 performance areas. For instance, patients in the worst performing LHIN waited 194 days to receive semi-urgent cataract surgery in 2012, which was five times that of the best-performing LHINs. Three years later, this performance gap widened from five times to 31 times. The Ministry needs to better understand the reasons for the widening gap and implement changes to narrow that gap if it wants to achieve the goal of ensuring health service levels do not vary significantly across the province.
- LHINs must better monitor health-service providers' performance. At the four LHINs we visited, we found that the quality of health service was not consistently monitored, performance information submitted by health-service providers (some of which contained errors) is not verified, and providers who did not perform well were not consistently dealt with in accordance with Ministry guidelines.
- Tracking of patient complaints lacks rigour and there is no common complaint-management process across LHINs, and LHINs did not always ensure that patient complaints are appropriately resolved. Across the province, three LHINs did not track complaints at all in 2014, or only partially tracked them.
- LHINs could not demonstrate that they have maximized economic efficiencies because the use of group purchasing and back-office integration differed across the LHINs we visited.

In our report, we recommended that the Ministry establish a clear picture of what a fully integrated health system looks like; analyze the reasons for the widening gap in the performance of LHINs in key performance areas; require LHINs to establish reasonable timelines to address performance gaps and monitor their progress; clarify with the LHINs what authority they have to reallocate funding among health service providers; and finalize the annual funding each health service provider will receive before the fiscal year begins or as early in the current fiscal year as possible.

We also recommended the LHINs take appropriate remedial action according to the severity and persistence of performance issues identified at health service providers; establish a common complaint-management process; and develop and implement action plans with timelines to address the service gaps identified in all health services in their regions.

This report contains 20 recommendations, consisting of 37 actions, to address our audit findings.

3.09 Long-term-care Home Quality Inspection Program

There are about 630 long-term-care homes in Ontario, and they provide accommodation and care to adults who are unable to live independently and/or who require round-the-clock nursing care in a secure setting. The homes provide care to approximately 77,600 residents, most of whom are over 65 years old.

The Ministry of Health and Long-Term Care (Ministry) funds, licenses and regulates Ontario's long-term-care homes. Homes can be either for profit or not-for-profit. In the 2014/15 fiscal year, ministry funding to long-term-care homes through the province's Local Health Integration Networks totalled $3.6 billion.

The Long-Term Care Homes Quality Inspection Program (Program) is designed to protect and safeguard residents' rights, safety and security, as well as ensure that long-term-care homes comply with legislation and regulations. Under the *Long-Term Care Homes Act* (Act), the Ministry may conduct inspections at any time without having to alert the homes beforehand. Inspectors who find that a home is not in compliance with the Act shall take formal enforcement action, including issuing a compliance order.

There are four types of inspections: comprehensive inspections, which assess residents' satisfaction and the homes' compliance with the law; complaint inspections, in response to complaints from residents, their families or the public; critical-incident inspections, following such incidents as fire, sudden death, missing residents, and reports of abuse, neglect, improper care or unlawful conduct; and follow-up inspections of homes issued with orders to comply with legislation.

Since 2013, the Ministry has focused attention and resources on completing comprehensive inspections of the 630 long-term-care homes by the end of 2014 and every year after that. However, the Program has had to deal with a growing workload in other areas, including more complaints and critical incidents at homes, and more follow-ups of non-compliance issues. As such, the Ministry needs to strengthen its oversight of the Program to address the significant variations in inspectors' workloads, the number of compliance orders issued, and inspection and reporting timeliness across the province.

Other significant observations include the following:

- While the Ministry made good on its commitment to do comprehensive inspections of all 630 homes (completed in January 2015), the backlog of inspections triggered by complaints and critical incidents more than doubled—from about 1,300 as of December 2013 to 2,800 as of March 2015. We found that 40% of high-risk complaints and critical incidents that should have triggered immediate inspections took longer than three days to act on. Over a quarter of these cases took between one and nine months for inspection. Sixty per cent of our sample of medium-risk cases that should have been inspected within 30 days took an average of 62 days. Delays in complaint inspections and critical-incident inspections can place residents of long-term-care homes at risk.
- The Ministry did not prioritize comprehensive inspections based on the risk levels of homes in terms of their compliance with legislation or regulations. For example, only a few homes that were considered high- or medium-risk had earlier comprehensive inspections from June to December 2013.
- Homes are given inconsistent timelines to rectify issues identified by inspectors. The Ministry does not provide clear guidance on how long homes should be given to comply with orders. For example, in 2014, inspectors in one region gave homes an average of 34 days to comply with orders relating to key risk areas (such as carrying out a resident's plan of care, protecting residents from abuse and neglect, and providing a safe, secure, and clean home), while inspectors in another region gave homes an average of 77 days to comply with similar orders.
- The Ministry does not have an effective process for monitoring compliance orders that require follow-up. About 380 compliance orders, or two-thirds of those due to be completed in 2014, had not been followed up within the Ministry's informal 30-day target.
- The Ministry has not taken sufficient action against long-term-care homes that have repeatedly failed to comply with orders to fix deficiencies. We noted that homes in one region did not comply with almost 40% of the compliance orders issued by the Ministry in 2014, while homes in another region did not comply with about 17% of orders. The Ministry did not know why the homes repeatedly failed to correct certain deficiencies.
- Ontario does not legislate a minimum front-line staff-to-resident ratio at long-term-care

homes. Home administrators told us that insufficient staffing and training were the main reasons they failed to achieve full compliance.

- As of March 2013, approximately 200 long-term-care homes (accommodating over 20,000 residents) did not have automatic sprinkler systems. The Ministry did not have more recent information on whether any of these homes had been retrofitted with automatic sprinkler systems. The current law does not require this to be done until 2025.

We recommended, among other things, that the Ministry identify the reasons for the significant fluctuation in the number of complaints and critical incidents; collect and analyze the information needed to develop a detailed resource plan and distribute resources accordingly; track, monitor and prioritize complaints, critical incidents and orders that are overdue for inspection; prioritize comprehensive inspections based on long-term-care homes' compliance history and other risk factors; establish a clear policy for inspectors to use in determining an appropriate time frame for homes to comply with orders addressing similar risk; strengthen its enforcement processes to promptly address homes with repeated non-compliance issues; and establish a formal protocol with the Office of the Fire Marshal and Emergency Management and municipal fire departments to regularly share information on homes' non-compliance with fire safety regulations.

This report contains 13 recommendations, consisting of 30 actions, to address our audit findings.

3.10 Management of Contaminated Sites

Governments are responsible for cleaning up certain sites in their jurisdictions that have been contaminated by chemicals or other materials that are hazardous to the environment or to human health.

In Ontario, a number of provincial statutes deal with environmental protection and contamination, with the most comprehensive being the *Environmental Protection Act*. If contamination in an area for which the province is responsible causes or may cause an adverse effect on the environment or human health, the government must clean it up. Several ministries and agencies share responsibility for the province's contaminated sites.

To fulfill the responsibility of cleaning up contaminated sites, governments need robust systems for identifying the sites in their jurisdictions, assessing the nature and extent of the contamination, implementing programs to mitigate the risks posed by these sites to the public and the environment, and remediating these sites for future use.

Our audit found weaknesses in the government's processes for identifying, measuring, and reporting on its contaminated sites. While we were satisfied with the government's efforts to identify all contaminated sites for which it is financially responsible, we would like to see a continued focus on improving the government's estimate of its $1.8 billion financial liability for these sites in the future.

As well, the government has no overall plan or funding strategy in place for cleaning up its contaminated sites. Although it has identified its high-risk contaminated sites, it lacks a central leader (such as the contemplated Contaminated Sites Project Office) to manage the cleanup process from a government-wide perspective.

Additional significant observations include the following:

- Overall, we found that there was no centralized oversight of the various ministries' processes for managing their contaminated sites and estimating their liabilities in this area.
- The government needs a centralized inventory of contaminated sites. Without one, it is hard to get a complete picture of the government's contaminated sites or track the progress of managing them. We found a few instances where more than one ministry reported being responsible for the same contaminated site.
- The province needs a government-wide process for prioritizing high-risk contaminated

sites for remediation. Without a model that captures and prioritizes all contaminated sites, the government risks funding remediation of lower-priority sites and neglecting sites that have a greater impact on the health and safety of the public.

- Without clear direction, ministries may make errors in accounting for and reporting the liabilities associated with their contaminated sites. The Provincial Controller's Office provided guidance to ministries on implementing a new accounting standard in this regard. While this guidance was helpful, the Provincial Controller's Office should provide ministries with additional formal guidance in several areas, including clarifying the types of costs that should be included in the liability calculation, clarifying when and how present value accounting techniques should be applied, and providing approaches to estimating a liability in the absence of an environmental site assessment.
- We found there was poor documentation to support the calculation of the liabilities associated with contaminated sites. Without adequate documentation, there is a risk that the number of contaminated sites for which the government is responsible and/or the costs associated with cleaning them up could be misstated. There is also the risk that critical information could be lost if staff who have knowledge in these areas leave government.
- The government has no policies or processes for updating financial liability estimates for remediating contaminated sites. Ministries need to monitor their sites and review them annually to determine if environmental site assessments require updating or if liability estimates need to be revised to reflect changes in technology, site conditions, environmental standards, inflation or other factors.

We recommended that the government designate a central unit or ministry group with overall responsibility for managing contaminated sites. We also recommended that the stakeholder ministries ensure the development and implementation of a centralized database inventory of all contaminated sites; finalize the risk prioritization model that will be used to assess all remediation funding proposals; co-ordinate the development of a long-term plan for remediating the province's contaminated sites that includes both an annual and a long-term funding strategy; periodically report to Treasury Board, on a consolidated basis, their progress in remediating contaminated sites; improve documentation maintained on their contaminated sites liability estimates that includes periodic reviews of low risk sites to ensure the classification remains valid; and annually review their liability estimates. We also recommended the Office of the Provincial Controller Division provide formal guidance to ministries on how to account for and measure these liabilities.

This report contains seven recommendations, consisting of 12 actions, to address our audit findings.

3.11 Mines and Minerals Program

The Ministry of Northern Development and Mines (Ministry) is responsible for overseeing the province's minerals sector, in accordance with the *Mining Act* (Act). Ontario is the largest mineral producer in Canada, accounting for a quarter of the country's mineral production. The Act and its regulations are intended to encourage development of mineral resources in a way that recognizes existing Aboriginal and treaty rights, and minimizes adverse effects on public health and safety, and the environment.

The responsibilities under the Act are carried out by the Ministry's Mines and Minerals Division, and its Ring of Fire Secretariat, which is responsible for overseeing the development of the Ring of Fire mineral deposit in northern Ontario. In the 2014/15 fiscal year, the Ministry had more than 270 full-time employees and spent $41 million.

Our audit highlighted that the Ministry has not been effective in encouraging timely mineral development in the province. A 2014 edition of a Fraser Institute annual survey of mining and exploration companies ranked Ontario ninth among Canada's provinces and territories in investment attractiveness in mineral exploration, even though it has one of the lowest mining tax rates in the country. As of September 2015, Ontario's effective tax rate was only 5.6%, considerably lower than the national average of 8.6%. However, the amount of mining taxes and royalties collected from mining companies over the last 20 years has averaged less than 2% of the value of minerals extracted. Ontario has collected very little in royalties from its only diamond mine. We also noted that the Ministry lacks adequate processes to manage mine closure plans and the rehabilitation of abandoned mines.

In 2010, the government established the Ring of Fire Secretariat to work and consult with Aboriginal Peoples, northern Ontarians and the mining community to encourage the sustainable development of the Ring of Fire. The Secretariat has 19 full-time staff in Sudbury, Thunder Bay and Toronto. Since it was established, the Secretariat has incurred over $13.2 million in operating expenses.

The Ring of Fire, located in the James Bay lowlands, about 500 kilometres northeast of Thunder Bay, is approximately 5,000 square kilometres, with most mineral discoveries to date located in a 20-kilometre-long strip. In 2001, significant deposits of nickel, copper, zinc and platinum were identified. However, it was the discovery of North American's first commercial quantity of chromite in 2008 that attracted more intense interest to the area. Chromite is a mineral used to make ferrochrome, an alloy essential to making stainless steel, which is in demand worldwide. The chromite deposit is estimated to be at least 220 million tonnes, which would make it one of the richest deposits in the world. The chromite and nickel deposits alone in the region are estimated to have a potential value of $60 billion. The Ring of Fire discovery is one of the province's greatest mining opportunities. However, the area is still not close to being ready for production and the Ministry has no detailed plan or timeline for developing the region.

Our other significant observations included the following:

- The Ministry's marketing strategies may be ineffective, and it is slow to make geosciences information available to the mining industry. Mapping projects expected to be completed by 2014 were behind an average of 19 months. As well, over 1,250 geological assessments dating back to 2013 had not yet been made publicly available online through a searchable database. As a result, this technical information was not easily accessible to potential developers to help them identify opportunities for mineral exploration and development.
- Lack of clarity on duty to consult with Aboriginal communities slows investment.
- The Ministry has not estimated the total cost of rehabilitating the 4,400 abandoned mine sites in Ontario since 1993 and therefore does not know the current cost for doing so. As well, it does not have a long-term plan for rehabilitating these abandoned mine sites. The Ministry recently determined rehabilitation costs for the 56 highest-risk contaminated sites alone to be $372 million. However, it has no plans to carry out a detailed cost estimate for the remaining sites where potential rehabilitation costs could range from $163 million to $782 million.
- The Ministry conducts minimal inspection and follow-ups on abandoned mines, and has inspected only 6% (248) of abandoned mines to ensure that they do not pose a risk to public health and the environment. Of 362 mines that are considered high-risk, only 142 have been inspected.
- The remoteness of the Ring of Fire requires significant infrastructure investment to open access to it and to encourage development in the region. In 2014, the provincial government committed $1 billion to infrastructure in the region, contingent on matching funds from the federal government. However, the federal government did not commit to match

the funds due to the lack of detailed plans for development. The province's commitment alone will not be enough to meet the region's infrastructure needs.

- No minerals have been extracted yet from the Ring of Fire. In 2013, an international mining company that held the rights to develop the chromite deposits pulled out and sold most of those rights to a Canadian junior mining company. The Canadian company has no current plans to develop the chromite holdings. Other potential investors cannot mine most of the chromite in the region unless the Canadian company agrees to sell its rights.

In our report, we recommend that the Ministry evaluate its current investment-marketing activities and determine if new, more appropriate strategies should be implemented; ensure that requirements surrounding its Aboriginal consultation process are clarified and can easily be understood by potential investors; establish a detailed plan for the development of the Ring of Fire with measurable outcomes, and regularly assess and report on progress in achieving them; inspect all high-risk abandoned mines that have not been inspected in the last five years to determine if these sites pose risks to public safety; and review and update where necessary the province's mining fees, taxes and royalty regimes to ensure that Ontarians receive a fair share of the province's mineral resources.

This report contains 13 recommendations, consisting of 28 actions, to address our audit findings.

3.12 Social Assistance Management System

Approximately 900,000 Ontarians in need receive social assistance because they are unemployed and/or have disabilities. Social assistance provides financial aid, health benefits, access to basic education, and job counselling and training to some of the most vulnerable people in society, with an objective of helping them become as self-sufficient as possible.

Intending to help improve and modernize the administration and delivery of social assistance, the Ministry of Community and Social Services (Ministry) decided to replace its old information technology system. In 2009, Curam Case Management System (now IBM) won the competition and the government approved a project budget of $202.3 million. An initial deadline of November 2013 was set for the launch of SAMS.

Data issues, defects and delays derailed the well-intentioned efforts of the Ministry to modernize social-assistance delivery with a new high-performing information-management system. The launch date was changed several times because of delays and issues that arose. The Ministry finally launched SAMS in November 2014, a year later than planned and about $40 million over budget. At its launch, SAMS had a number of serious defects that caused numerous errors.

In March 2015, at an additional expense, the Ministry hired consultants to conduct a review of SAMS to then put in place an integrated transition and business recovery plan. The Ministry also committed to working with municipal delivery partners on the ongoing improvement of SAMS. As the Ministry does not anticipate SAMS will become fully stable until spring 2016, the final cost of SAMS will remain unknown until that time.

About 11,000 ministry and municipal personnel have to rely on SAMS to help them determine an applicant's eligibility for social assistance; calculate and distribute about $6.6 billion in annual benefit payments; generate letters to inform people about their eligibility or changes to their benefits; and generate reports with information that the Ministry and municipalities need to manage social assistance programs.

So far, the consequences of launching a defective system include the fact that SAMS has generated about $140 million in benefit calculation errors—$89 million in potential overpayments and $51 million in potential underpayments. As well, SAMS has generated many letters and tax slips containing incorrect information. Some of these errors may never be resolved. At the time of our audit, SAMS was still not functioning properly requiring caseworkers to use time-consuming workarounds to deal with problems.

Our other significant concerns included the following:

- Prior to launch, SAMS was not fully tested, and those tests that were done yielded results that were poor. SAMS was also not piloted with data converted from the previous system because of delays. At launch there were about 114,000 errors in client data that caused SAMS to generate incorrect results for client eligibility and benefit payments.
- Only some of the government-mandated payment testing was conducted, and many serious payment-related defects were found after launch. According to the Office of the Provincial Controller, SAMS is the only computer system ever connected to the government's accounting system without passing the government-mandated payment testing.
- The Executive Committee overseeing the development of SAMS assumed significant risk when it decided to launch the system because it knew that SAMS did not meet the launch criteria developed by the Ministry. The Ministry launched anyway because it considered the risks of delaying to be greater than the risks of launching a system that was not fully ready.
- While the Executive Committee knowingly assumed some risks by launching SAMS, it was not made aware of key information, including that there were more serious defects than reported, and that some crucial tests had produced results poorer than reported.
- In the six months before launch, the testing team began reporting to the business project director instead of the technical project director, as it had been doing. However, the business project director had no IT background, nor the required technical expertise.
- Ontario's Internal Audit Division proposed an audit of SAMS' readiness four months before launch. However, Internal Audit and SAMS' project leads could not agree on the scope of the audit and it was not performed.
- The Ministry did not properly oversee the external consultants; instead consultants oversaw other consultants through most of SAMS' development. The vagueness in consultants' time reporting, and the lack of independent oversight during much of the project, made it difficult to assess how efficiently consultants were working.
- Training provided by the Ministry to caseworkers prior to launch, on how to use SAMS, was inadequate.
- As of July 31, 2015, there were still 771 serious defects in SAMS that had been identified but not fixed. Our audit found that Ministry resources were not sufficiently dedicated to fixing defects. Also, there are likely additional defects that have not been identified because the Ministry had a backlog of complaints and problems that caseworkers had reported.
- Until defects are dealt with, problems will persist. SAMS will remain difficult to use, continue to generate incorrect eligibility determinations and benefit payments, and continue to generate inaccurate reports that the Ministry and municipalities need to properly manage Ontario Works and the Ontario Disability Support Program. In addition, caseworkers will continue to have to use time-consuming "workarounds" to deal with these problems, taking away time from providing the full range of case-management services to clients.

In our report, we recommended that the Ministry review the backlog of information related to potential defects so that defects can be prioritized for fixing; reconcile all benefit payment errors generated by SAMS to the eligible amounts clients should have received; ensure that consultants' work is assessed for efficiency and effectiveness; establish a knowledge transfer strategy for ministry staff; and ensure that SAMS undergoes and passes all government mandated payment testing.

This report contains five recommendations, consisting of 12 actions, to address our audit findings.

3.13 Student Transportation

In the 2013/14 school year, over 830,000 Ontario students were transported daily to and from publicly funded schools on approximately 19,000 school vehicles. More than 70% of the children transported were in kindergarten or elementary school.

The *Education Act* does not explicitly require school boards to provide transportation services, but every board provides some level of transportation services to students. Transportation grants for the 2014/15 school year were estimated to be $880 million. Almost all student transportation in Ontario is provided through contracts with school bus operators.

Five parties are involved in student transportation:

1. The Ministry of Education provides funding to the 72 school boards and conducts an annual survey of the boards. The Ministry gives the boards authority for overall decisions, including policies and eligibility criteria.
2. Thirty-three transportation consortia formed by the school boards plan transportation services and contract with school bus operators, manage their contracts and monitor performance.
3. School boards oversee the consortia and provide them with key information about their schools and students. The boards determine which groups of students they transport and spend their funding on (based largely on the distance between home and school).
4. School bus operators are contracted by consortia to transport students. They are required to ensure their vehicles and drivers meet legislated safety requirements, and to comply with contract provisions such as safety training for drivers and students, and background checks for drivers.
5. The Ministry of Transportation (MTO) enforces federal and provincial laws and regulations for the design and mechanical condition of vehicles, licensing of drivers and safe operation of vehicles.

School vehicles are generally considered a safe mode of transportation based on the number of collisions in relation to the number of passengers transported and kilometres travelled. MTO reported that over the last five years, school vehicles have been involved in 5,400 collisions that have resulted in property damage, personal injuries and fatalities.

Overall, in Ontario, the risk of personal injury from collisions involving school vehicles is lower than for other types of vehicles, and the risk of fatalities is similar to that for all other types of vehicles. However, in 2013, the latest year for which information is available, Ontario's school vehicles were involved in more collisions proportionately than automobiles and trucks, but fewer than other types of buses, based on total number of vehicles by type. Police determined that the school bus driver was at fault in 40% of cases.

Nevertheless, the potential of risk to students being transported makes it important that the Ministry of Education, school boards and transportation consortia, and MTO continue to consider and minimize risk factors in three key areas that impact the safe transport of students: bus driver competence, vehicle condition and student behaviour.

Based on our audit, we concluded that a better oversight of bus operators and their drivers, better processes for ensuring the safe operation of school vehicles, better training for students in bus safety, and better tracking and analysis of collisions and incidents may even further reduce risks to students.

Our specific observations regarding the safe transport of students include the following:

- Better oversight and monitoring are needed by the consortia to ensure school bus driver competence.
- The Ministry of Education has not set guidelines for the reporting of school vehicle collisions and incidents. Only limited information is being tracked by consortia on incidents impacting students, such as late buses and mechanical breakdowns of vehicles, that could be used to identify the causes and develop strategies to prevent them. With the limited information available to us during our audit, we noted a 67% increase in such incidents between 2012/13 and 2013/14 from almost 35,000 incidents to nearly 58,000 incidents.
- Improvements are needed by consortia and MTO in ensuring school vehicles are in good condition. For example, MTO inspections did not target those vehicles most at risk for safety violations, were not always done on time, and did not always ensure that defects were fixed.
- There is little oversight of school bus operators, who are allowed to certify their own buses for mechanical fitness.
- The Ministry of Education has not mandated bus safety training for students. Only 16 of the 33 consortia had mandatory general school bus safety training.

Ontario has no provincial standard for busing. We found that busing is not available on an equal basis to students across the province or even in schools within the same board. We also saw differences in how consortia operated and managed busing services. The degree to which school boards are willing to integrate these services is also a factor.

Our specific observations in the area of efficient transportation of students include the following:

- Funding for school transportation is not based on need, but instead on each board's 1997 spending level, with annual adjustments. The Ministry of Education's funding formula does not take into account local factors that significantly influence transportation costs.
- The Ministry of Education has not determined if the wide variances among boards in the cost of transporting students are justified.
- Reliable bus utilization data is not available. Consortia we visited did not typically track the number of riders. As well, each set its own capacity for a bus and used different methods to calculate the utilization rate.
- Consortia are contracting for more bus services than they need.

In our report we recommended that the Ministry of Education clarify the roles and responsibilities of school boards and consortia; set standards on eligibility for transportation services; revisit its current funding formula; and set standards for the utilization of school vehicles.

We also recommended that the transportation consortia, among other things, develop and conduct consistent and effective oversight processes for school bus operators; and track data on driver turnover and accidents and incidents to determine whether there is a link between bus driver turnover and safety risks.

In addition, we recommended that MTO update and maintain complete and accurate information on the location of operators' terminals and school vehicles at each terminal; and focus inspections on school buses considered to be high risk and those not inspected recently.

This report contains 15 recommendations, consisting of 31 actions, to address our audit findings.

3.14 University Intellectual Property

Our audit focused on whether the Ministry of Research and Innovation had co-ordinated and put effective processes in place to provide research funding to universities, monitor the use of research funding, and assess the benefits to Ontarians. This audit also looked at how select universities manage intellectual property generated from university research, including identifying, protecting, assessing and commercializing intellectual property.

Ministry of Research and Innovation

The province provides research grants to post-secondary institutions, research hospitals and not-for-profit research institutions. Under Ontario's Innovation Agenda of 2008, the Ministry of Research and Innovation (Ministry) is responsible for extracting "more value from all provincial investments in research and innovation." The Ministry's commercialization programs are intended to provide services such as access to capital, business acceleration services, mentoring, training and networking to companies, entrepreneurs and researchers. The Ministry provides funding to a network of organizations, including the Ontario Centres of Excellence, MaRS, regional innovation centres and sector innovation centres, which in turn fund and/or provide these services.

We estimated that in the last five years, the province has provided at least $1.9 billion for university research, excluding funding for service delivery agents (such as MaRS and regional innovation centres) and tax incentives for private companies.

Our audit noted that the Ministry does not co-ordinate or track all of the province's investments in research and innovation, and has not measured the value created from these investments. As a result, it is difficult for the government to determine whether it is getting value for money from its significant investment in university research.

Some of our significant observations relating to the Ministry include the following:

- The Ministry needs to develop an implementation plan to monitor whether it is getting value for money from its investments in research and innovation in accordance with the strategic direction outlined in its 2008 Innovation Agenda.
- The Ministry has a comprehensive selection process for awarding university grants, and is generally following its guidelines for awarding these grants, but does not confirm that research outcomes align with those identified in grant proposals.
- In order to address barriers to commercialization, the Ministry needs to develop a strategy and action plans with timelines to monitor progress.
- The provincial government has virtually no rights to intellectual property resulting from the research it funds. Unlike Ontario, we noted that U.S. federal government agencies can use intellectual property made with government funding royalty-free for its own non-commercial purposes.

Universities

Inventions and scientific discoveries made at universities could spur economic growth and enhance Ontarians' quality of life if they are commercialized. This requires universities to protect their rights to the intellectual property in their discoveries, and to bring their discoveries to market for the benefit of Ontarians.

Each university in Ontario has a vice-president of research responsible for managing and co-ordinating the university's research and commercialization activities. University technology transfer offices share their expertise and industry connections with inventors, in exchange for which inventors may agree to give up some or all of their intellectual property rights, in accordance with the universities' policies.

We further found that technology transfer offices we visited had experience with assessing the commercialization potential of inventions, but could make some improvements. Specifically:

- While universities do track key commercialization indicators and results of their technology transfer offices, they do not yet measure the socio-economic impact of their research activities and commercialization efforts. It may be time to take on this challenge to further confirm value for money is being achieved.

- Universities may not always be taking out patent protection in time to prevent others from obtaining patents on their inventions.
- None of the technology transfer offices we visited highlighted revenue generation as a driving force.
- None of the technology transfer offices we visited had formal guidelines or policies on managing costs associated with commercialization. In a number of cases there were delays in collecting revenues from intellectual property revenue generating agreements.
- From our review of files in technology transfer offices, documentation was not available to confirm that formal processes were used to assess the feasibility of commercialization and track decisions/actions being taken.

In our report, we recommended that the Ministry establish processes to track and monitor the total direct and indirect provincial funding for research and innovation, and the new technologies and inventions resulting from the funding; develop a strategy and action plan on addressing barriers to commercialization and monitor its progress; collaborate with stakeholders to collectively develop useful performance measures that assess the economic benefits to Ontarians; and review and assess the pros and cons of including provisions in selective research funding agreements that would allow the province to share in future income and/or have the non-exclusive right to use intellectual property royalty free for non-commercial internal purposes.

We also recommended that universities review their performance measures and identify opportunities to report more detailed information in their annual research reports and in reports going to senior management; develop guidelines to help faculties assess whether university resources were used in the creation of intellectual property; formally track and review how long it takes to complete assessments on whether or not to commercialize disclosures and address any delays; file for patent protection as early as possible; develop case management documentation guidelines and ensure commercialization decisions and actions are clearly and consistently documented; implement policies and guidelines regarding cost management and track costs incurred by type for each disclosure; and improve revenue collection efforts.

This report contains 15 recommendations, consisting of 27 actions, to address our audit findings.

Chapter 2

Public Accounts of the Province

Introduction

Ontario's *Public Accounts* for the fiscal year ending March 31, 2015, were prepared under the direction of the Minister of Finance, as required by the *Financial Administration Act* (*Act*) and the President of the Treasury Board. The Public Accounts consist of the province's Annual Report, including the province's consolidated financial statements, and three supplementary volumes of additional financial information.

The government is responsible for preparing the consolidated financial statements and ensuring that this information, including many amounts based on estimates and judgment, is presented fairly. The government is also responsible for ensuring that an effective system of control, with supporting procedures, is in place to authorize transactions, safeguard assets and maintain proper records.

My Office audits these consolidated financial statements. The objective of our audit is to provide reasonable assurance that the statements are free of material misstatements—that is, free of significant errors or omissions. The consolidated financial statements, along with my Independent Auditor's Report, are included in the province's Annual Report.

The province's 2014/15 Annual Report also contains a Financial Statement Discussion and Analysis section that provides additional information regarding the province's financial condition and fiscal results for the year ended March 31, 2015. Providing such information enhances the fiscal accountability of the government to both the Legislative Assembly and the public.

The three supplementary volumes of the Public Accounts consist of the following:

- Volume 1—statements from all ministries and a number of schedules providing details of the province's revenue and expenses, its debts and other liabilities, its loans and investments, and other financial information;
- Volume 2—audited financial statements of significant provincial corporations, boards and commissions whose activities are included in the province's consolidated financial statements, as well as other miscellaneous audited financial statements; and
- Volume 3—detailed schedules of ministry payments to vendors and transfer payment recipients.

My Office reviews the information in the province's Annual Report, and in Volumes 1 and 2 of the Public Accounts, for consistency with the information presented in the province's consolidated financial statements.

The Act requires that, except in extraordinary circumstances, the government deliver its Annual Report to the Lieutenant Governor in Council within 180 days of the end of the fiscal year. The three supplementary volumes must be submitted to the Lieutenant Governor in Council within 240 days of the end of the fiscal year. Upon receiving these documents, the Lieutenant Governor in Council must lay them before the Legislative Assembly or, if the Assembly is not in session, make the information public and then lay it before the Assembly within 10 days of the time it resumes sitting.

This year, the government released the province's 2014/15 Annual Report and Consolidated Financial Statements, along with the three Public Accounts supplementary volumes, on September 28, 2015, meeting the legislated deadline.

In conducting our annual audit of the Public Accounts we work closely with the Treasury Board Secretariat and particularly with the Office of the Provincial Controller and the Ministry of Finance. While we might not always agree on financial reporting issues, our working relationship has always been professional and constructive.

Summary

A major area of commentary in our *2014 Annual Report* focused on Ontario's growing debt burden. As a follow-up, we discuss the topic this year, focusing on the critical implications of the growing debt for the province's finances. Increases in the debt are attributable to continued government borrowing to finance deficits and infrastructure spending. Although the debt has been growing at a somewhat lower rate than last year's estimates, it continues to rise.

The negative impacts of a large debt burden include:

- debt-servicing costs divert funding away from other government programs;
- a greater vulnerability to any interest-rate increases; and
- potential credit-rating downgrades and changes in investor sentiment, which could make it more expensive for Ontario to borrow.

Consistent with our commentary last year, we continue to take the view that the government should provide legislators and the public with long-term targets for addressing Ontario's current and projected debt, and we again recommend that the government develop a long-term debt-reduction plan.

We also report in this chapter that the province's consolidated financial statements consistently comply with the standards of the Public Sector Accounting Board (PSAB) in all material respects. Successive governments have been diligent in their continued efforts to improve the clarity and completeness of the province's consolidated financial statements and Annual Report. This was demonstrated in this year's Public Accounts, with the province recognizing an additional $1.7 billion in environmental liabilities in its March 31, 2015 Consolidated Financial Statements, in accordance with PSAB's new accounting standard, *PS 3260, Liability for Contaminated Sites*, which addresses accounting for, and reporting liabilities associated with, contaminated sites and their remediation.

We also reviewed the content of the Financial Statement Discussion and Analysis (FSD&A) included in the province's Annual Report. Overall, we believe the FSD&A is easy to understand and highlights the financial management principles underlying the province's financial results and actual-to-budget variances during the past year. However, we have identified a number of areas where additional information to improve insight into the province's financial position and annual operating results for the year could be incorporated into the FSD&A.

It is our view that PSAB standards are the most appropriate for the province to use in preparing the consolidated financial statements. This ensures that information provided by the government about the surplus and the deficit is fair, consistent and comparable to data from previous years. This allows legislators and the public to better assess government management of the public purse.

However, we note PSAB faces challenges in reaching a consensus among its various stakeholders, including auditors and those who prepare financial statements, on what accounting standards are most appropriate for the public sector. In this Annual Report, we discuss three significant accounting issues that PSAB has been addressing on an ongoing basis. We further outline PSAB initiatives relating to the development of new accounting standards that might impact the preparation of the province's consolidated financial statements in the future.

We also raise again the issue of Ontario having introduced legislation on a number of occasions to establish specific accounting practices that are not, in some cases, consistent with PSAB. Up to now, this has not had any material impact on the province's consolidated financial statements. However, the use of existing legislated accounting treatments by the government on future transactions, or the introduction by the government of further legislated accounting treatments, could make this a greater concern to my Office that the financial results of the province may not be fairly stated. Therefore, standard-setters, governments and auditors must work together in the public interest to resolve financial reporting issues faced by governments and public-sector entities.

The Province's 2014/15 Consolidated Financial Statements

The *Auditor General Act* requires that I report annually on the results of my examination of the province's consolidated financial statements. I am pleased to note that my Independent Auditor's Report to the Legislative Assembly on the province's Consolidated Financial Statements for the year ended on March 31, 2015, is free of reservations. It reads as follows:

Independent Auditor's Report

To the Legislative Assembly of the Province of Ontario

I have audited the accompanying consolidated financial statements of the Province of Ontario, which comprise the consolidated statement of financial position as at March 31, 2015, and the consolidated statements of operations, change in net debt, change in accumulated deficit and cash flow for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

The Government of Ontario is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Canadian public sector accounting standards, and for such internal control as the Government determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

My responsibility is to express an opinion on these consolidated financial statements based on my audit. I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Government, as well as evaluating the overall presentation of the consolidated financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Opinion

In my opinion, these consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Province of Ontario as at March 31, 2015, and the consolidated results of its operations, change in its net debt, change in its accumulated deficit, and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

[signed]

Toronto, Ontario Bonnie Lysyk, MBA, CPA, CA, LPA
August 21, 2015 Auditor General

The above audit opinion is without any reservation, indicating that the consolidated financial statements fairly present the province's fiscal results for the 2014/15 fiscal year and its financial position at March 31, 2015 in accordance with Public Sector Accounting Board standards. This "clean" audit opinion means that, based on our audit work, we have concluded that the province's consolidated financial statements were prepared in accordance with accounting standards recommended for governments by the Chartered Professional Accountants of Canada (CPA Canada). We are also communicating to users that the province's consolidated financial statements do not have any material or significant errors and provide a fair reflection of what has actually transpired during the year.

If we were to have concerns with the government's compliance with CPA Canada's recommended Public Sector Accounting Board (PSAB) standards, we may be required to issue an audit opinion with a reservation. An audit opinion with a reservation means significant financial transactions have not been recorded, have not been recorded properly, or have not been disclosed properly in the notes to the province's consolidated financial statements.

In determining whether a reservation is needed, we consider the materiality or significance of the unrecorded, misstated or improperly disclosed items in relation to the overall consolidated financial statements. An assessment of what is material (significant) and immaterial (insignificant) is based primarily on our professional judgment. Essentially, we ask the question "Is this error, misstatement or omission significant enough that it could affect decisions made by users of the province's consolidated financial statements?" If the answer is yes, then we consider the error, misstatement or omission material.

To help make this assessment, we determine a materiality threshold. This year, as in past years and consistent with most other provincial jurisdictions, we set the threshold at 0.5% of the greater of government expenses or revenue for the year. If misstated items individually or collectively exceed this threshold, and management is not willing to make appropriate adjustments, a reservation in our Independent Auditor's Report would be required.

My Office has been working closely with the Office of the Provincial Controller Division of the Treasury Board Secretariat over the years to enhance the usefulness, readability and transparency of Ontario's Annual Report and consolidated financial statements, so we were pleased to see a recent report from the C.D. Howe Institute on federal and provincial reporting practices that recognized these enhancements. Ontario received a grade of "A," ranking it among the best in the overall quality of its reporting on financial results. A major aim of the C.D. Howe report is to celebrate the relatively transparent reporting in New Brunswick, Saskatchewan, Ontario and Ottawa, and to encourage other jurisdictions to raise their game.

As a final comment, it is notable that in the past 22 years, all Ontario governments regardless of their political party have complied in all material respects with approved accounting standards. Accordingly, our Office has been able to issue "clean" audit opinions on the province's consolidated financial statements every year since the province adopted PSAB accounting standards in the 1993/94 fiscal year.

Update on Ontario's Debt Burden

In our *2014 Annual Report*, we commented on Ontario's growing debt burden, attributable to its large deficits in recent years and its investments in capital assets such as infrastructure. We noted that the province has been able to rely on historically low interest rates to keep its debt-servicing costs relatively stable, but the debt itself, whether measured as total debt, net debt or accumulated deficit, continued to grow. **Figure 1** shows the province's debt levels continue to rise, though at a lower rate than projected last year.

- **Total debt** is the total amount of borrowed money the government owes to external parties. It consists of bonds issued in public capital markets, non-public debt, T-bills and U.S. commercial paper. Total debt provides the broadest measure of a government's debt load.
- **Net debt** is the difference between the government's total liabilities and its financial assets. Liabilities consist of all amounts the government owes to external parties, including total debt, accounts payable, pension and retirement obligations, and transfer payment obligations. Financial assets are those that theoretically can be used to pay off liabilities or finance future operations, and include cash, accounts receivable, temporary investments and investments in government business enterprises. Net debt provides a measure of the amount of future revenues required to pay for past government transactions and events.
- **Accumulated deficit** represents the sum of all past annual deficits and surpluses of the government. It can also be derived by deducting the value of the government's non-financial assets, such as its tangible capital assets, from its net debt.

Figure 1: Total Debt, Net Debt, and Accumulated Deficit, 2009/10–2017/18

Sources of data: March 31, 2015 Province of Ontario Consolidated Financial Statements, 2015 Ontario Budget and Office of the Auditor General of Ontario

	Actual ($ million)						Estimate ($ million)		
	2009/10[1]	**2010/11[1]**	**2011/12[1]**	**2012/13[1]**	**2013/14[1]**	**2014/15[2]**	**2015/16[1]**	**2016/17[1]**	**2017/18[1]**
Total debt	212,122	236,629	257,278	281,065	295,758	314,960	323,619	334,800	341,400
Net debt	193,589	214,511	235,582	252,088	267,190	284,576	298,864	311,500	319,500
Accumulated deficit	130,957	144,573	158,410	167,132	176,634	187,511	194,848	199,700	199,700

1. 2015 Ontario Budget
2. 2014/15 Province of Ontario Consolidated Financial Statements

Main Contributors to Net Debt

The province's growing net debt since the end of the 2008/09 fiscal year is attributable to its large deficits in recent years, along with its investments in capital assets such as buildings, other infrastructure and equipment acquired directly or through public-private partnerships for the government or its consolidated organizations, such as public hospitals, as illustrated in **Figure 2**.

While annual deficits are projected to decline, the province is still increasing its borrowings annually to finance these deficits, replace maturing debt and to fund infrastructure. In fact, the net debt is projected to continue growing in absolute terms even after the province starts to run annual budget surpluses. The province can begin paying down its debt only when such future surpluses provide cash flows over and above the amounts required to fund government operations and net investments in tangible capital assets.

By the time the government projects it will have eliminated the deficit in 2017/18, Ontario's net debt will have doubled over a 10-year period, from $156.6 billion in 2007/08 to over $319.0 billion by 2017/18. We estimate total debt will exceed $340.0 billion by 2017/18.

To put this debt in perspective, the amount of net debt owed by each resident of Ontario on behalf of the government will increase from about $12,000 per person in 2008 to about $23,000 per person in 2018. In other words, to eliminate Ontario's net debt, each Ontarian would need to contribute $23,000 to the provincial coffers.

Ontario's Ratio of Net Debt to GDP

We noted a key indicator of the government's ability to carry its debt is the level of debt relative to the size of the economy. This ratio of debt to the market value of goods and services produced by an economy (the gross domestic product, or GDP) measures the relationship between a government's obligations and its capacity to raise the

Figure 2: Net Debt Growth Factors, 2009/10–2017/18 ($ million)

Sources of data: March 31, 2015 Province of Ontario Consolidated Financial Statements, 2015 Ontario Budget and Office of the Auditor General of Ontario

	Net Debt Beginning of Year	Deficit/ (Surplus)	Net Investment in Tangible Capital Assets[1]	Miscellaneous Adjustments[2]	Net Debt End of Year	Increase/ (Decrease)
Actual						
2008/09	156,616	6,409	5,348	1,212	169,585	12,969
2009/10	169,585	19,262	5,832	(1,090)	193,589	24,004
2010/11	193,589	14,011	7,306	(395)	214,511	20,922
2011/12	214,511	12,969	7,234	868	235,582	21,071
2012/13	235,582	9,220	7,784	(498)	252,088	16,506
2013/14	252,088	10,453	5,600	(951)	267,190	15,102
2014/15	267,190	10,315	6,509	562	284,576	17,386
Estimated						
2015/16	284,576	8,500	5,788		298,864	14,288
2016/17	298,864	4,800	7,836		311,500	12,636
2017/18	311,500	-	8,000		319,500	8,000
Total over 10 years	**–**	**95,939**	**67,237**	**(292)**	**–**	**162,884**

1. Includes investments in government-owned and broader public sector land, buildings, machinery and equipment, and infrastructure assets capitalized during the year less annual amortization and net gains reported on sale of government-owned and broader public sector tangible capital assets.
2. Unrealized Fair Value Losses/(Gains) on the Ontario Nuclear Funds Agreement (ONFA) Funds held by Ontario Power Generation Inc. and accounting changes.

funds needed to meet them. It is an indicator of the burden of government debt on the economy.

If the amount of debt that must be repaid relative to the value of the GDP is rising—in other words, the ratio is rising—it means the government's net debt is growing faster than the provincial economy, and becoming an increasing burden.

Figure 3 shows that the province's net debt-to-GDP ratio gradually fell over a period of eight years, from a high of 32.2% in 1999/2000 to 26.2% in 2007/08. However, it has been trending upward since then, reflecting such factors as the 2008 global economic downturn, when tax revenues fell abruptly and the government increased its borrowings significantly to fund annual deficits and infrastructure stimulus spending.

The net debt-to-GDP ratio is projected to reach a high of 39.9% in each of 2015/16 and 2016/17. After this peak, the government expects the ratio will begin falling, dropping to 39.3% in 2017/18. We note a small improvement in the projected net debt-to-GDP ratio from last year's estimate, reported in the province's 2013/14 Annual Report, of 40.5% in 2015/16, 40.3% in 2016/17, and 39.5% in 2017/18.

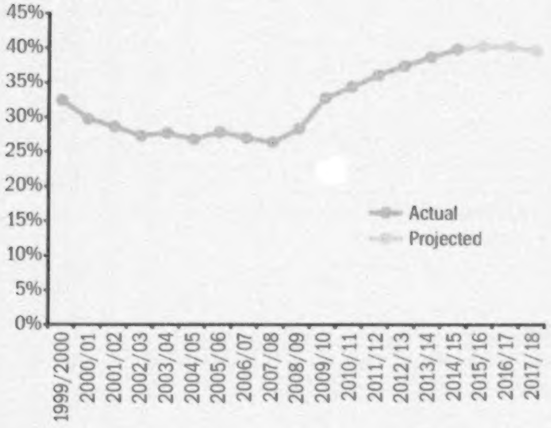
We noted in our *2014 Annual Report* that many experts believe when a jurisdiction's net debt-to-GDP ratio rises above 60%, that jurisdiction's fiscal health is at risk and is vulnerable to unexpected economic shocks.

We also warned it was somewhat of an oversimplification to rely on just one measure to assess a government's borrowing capacity, because that measure does not take into account Ontario's share of federal and municipal debts. If the province's share of those debts was included in its indebtedness calculations, the net debt would be much higher. However, consistent with debt-measurement methodologies used by most jurisdictions, we have focused throughout our analysis only on the provincial government's net debt.

An interesting exercise in assessing Ontario's ratio of net debt-to-GDP is to compare it with other Canadian jurisdictions. **Figure 4** shows the net debt of most provinces and the federal government, along with their respective ratios of net debt-to-GDP. Generally, the western provinces have a significantly lower net debt-to-GDP ratio than Ontario and the Atlantic provinces, and Quebec has a significantly higher ratio than Ontario.

Figure 3: Ratio of Net Debt to Gross Domestic Product (GDP), 1999/2000–2017/18

Source of data: March 31, 2015 Province of Ontario Annual Report - Financial Statement Discussion and Analysis



Note: Net debt includes broader-public-sector net debt starting in 2005/06.

Figure 4: Net Debt and the Net-debt-to-GDP Ratios of Canadian Jurisdictions, 2014/15

Sources of data: Province of Ontario Annual Report and Consolidated Financial Statements; Annual Report and Consolidated Financial Statements of other provincial jurisdictions; Federal Budgets and budget updates, budgets of provincial jurisdictions; and the Office of the Auditor General of Ontario

	Net Debt ($ million)	Net Debt to GDP (%)
AB	(13,054)	(3.6)
SK	5,552	6.7
BC	38,902	16.3
NL	10,259	29.2
MB	18,963	29.8
Federal	687,000	34.8
PEI	2,149	36.0
NS	15,031	37.0
NB	12,422	38.2
ON	284,576	39.5
QC	190,402	50.7

Ratio of Net Debt to Total Annual Revenue

Another useful measure of government debt is the ratio of net debt to total annual revenues, an indicator of how much time it would take to eliminate the debt if the province spent all of its revenues on nothing but debt repayment. For instance, a ratio of 250% indicates that it would take two-and-a-half-years to eliminate the provincial debt if all revenues were devoted to it. As shown in **Figure 5**, this ratio declined from about 200% in 1999/2000 to about 150% in 2007/08, reflecting the fact that, while the province's net debt remained essentially the same, annual provincial revenue was increasing. However, the ratio has increased steadily since 2007/08 and is expected to top 238% by 2017/18. This increasing ratio of net debt to total annual revenue indicates the province's net debt has less revenue to support it.

Ratio of Interest Expense to Revenue

Increases in the cost of servicing total debt, or interest expense, can directly affect the quantity and quality of programs and services that government can provide: the higher the proportion of government revenues going to pay interest costs on past borrowings, the lower the proportion available for program spending in other areas.

The interest-expense-to-revenue ratio illustrates the extent to which servicing past borrowings takes a greater or lesser share of total revenues.

As **Figure 6** shows, the province's interest-expense-to-total-revenue ratio decreased steadily in the decade ending in 2007/08, due mainly to a lower interest-rate environment. Because rates have been at historic lows since the beginning of this decade, both the actual and projected interest-expense-to-total-revenues ratio have held steady from 2009/10 to now at approximately 9.0% and are expected to continue to hold steady at around 9.0% to 2015/16. This is the case even as the province's total borrowings are expected to increase by approximately $111.0 billion, or 52%, from $212.0 billion to over $323.0 billion.

Based on the government's latest projections, the ratio is expected to gradually increase to 9.6% by 2016/17 and to almost 10% by 2017/18, when total debt is expected to be around $340 billion.

The province's debt also exposes it to further risks, the most significant being interest-rate risk.

Figure 5: Ratio of Net Debt as Percentage of Total Annual Revenue, 1999/2000–2017/18

Sources of data: March 31, 2015 Province of Ontario Consolidated Financial Statements, 2015, 2009, 2008 Ontario Budgets, Office of the Auditor General of Ontario

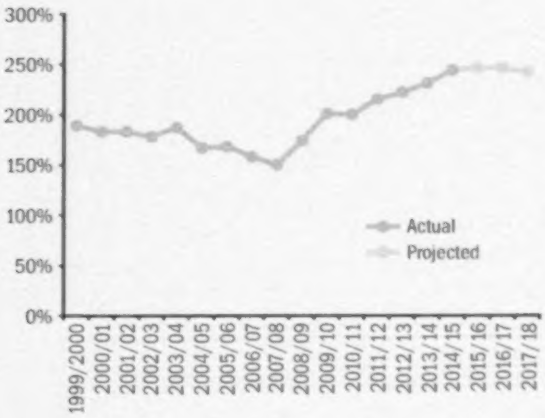
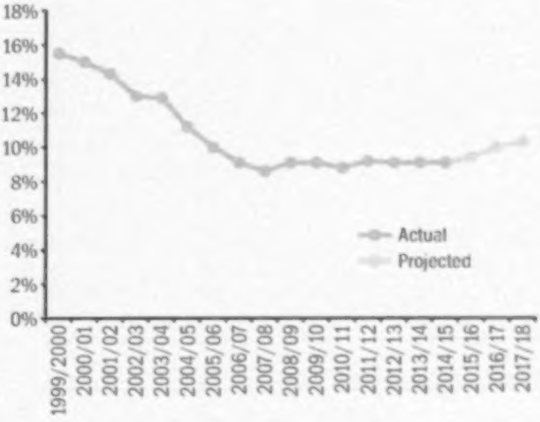


Figure 6: Ratio of Interest Expense to Revenue, 1999/2000–2017/18

Sources of data: March 31, 2015 Province of Ontario Consolidated Financial Statements, 2015, 2009, 2008 Ontario Budgets, Office of the Auditor General of Ontario



As discussed above, interest rates are currently at record low levels, enabling the government to keep its annual interest expense relatively steady even as its total borrowing has increased significantly. However, if interest rates rise, the government will have considerably less flexibility to provide public services because a higher proportion of its revenues will be required to pay interest on the province's outstanding debt. The government has mitigated its interest-rate risk to some extent by increasing the weighted average term of its annual borrowings. In 2008/09, the average borrowing term was 8.6 years, increasing to 14.1 years in 2014/15.

The increase in the ratio of interest-expense-to-revenue, expected to begin in 2016/17, indicates the government will have less flexibility to respond to changing economic circumstances. Past government borrowing decisions mean a growing portion of revenues will not be available for other current and future government programs.

Consequences of High Indebtedness

Our commentary last year highlighted the consequences for the province of carrying a large debt load—and the same observations are relevant this year. They include the following:

- **Debt-servicing costs cut into funding for other programs:** As debt grows, so do interest costs. As interest costs consume a greater proportion of government resources, there is less to spend on other things. To put this "crowding-out" effect into perspective, the government currently spends more on debt interest than on post-secondary education.
- **Greater vulnerability to interest-rate increases:** Over the past few years, governments have generally benefitted from record-low interest rates. Ontario has been able to keep its annual interest expense relatively steady, even as its total borrowing has increased significantly. For example, it was paying an average effective interest rate of about 8% in 1999/2000, but that dropped to 3.73% in 2014/15. However, if interest rates start to rise again, the government will have considerably less flexibility to provide public services as it will have to devote a higher proportion of its revenue to interest.
- **Potential credit-rating downgrades could lead to higher borrowing costs:** Prepared by specialized agencies, credit ratings assess a government's creditworthiness largely based on its capacity to generate revenue to service its debt. They consider such factors as a government's economic resources and prospects, industrial and institutional strengths, financial health, and susceptibility to major risks. A credit rating affects the cost of future government borrowing, with a lower rating indicating that an agency believes there is a relatively higher risk that a government will default on its debt. Accordingly, investors will lend to that government only in return for a greater risk premium, in the form of higher interest rates. A rating downgrade can also shrink the potential market for a government's debt, because some investors will not hold debt below a certain rating.

Final Thoughts

We recognize that, ultimately, decisions about how much debt the province should carry, and the strategies to pay down that debt, are questions of government policy. However, as we observed last year, this should not prevent the government from providing information to promote a greater understanding of the issue and clarify the choices it is making, or will make, to address it.

We continue to believe that in light of the government's plan to eliminate its annual deficit by 2017/18, and given that its debt-carrying costs were expected to rise from their current historic lows, this would be a good time for the government, legislators and the public to start a conversation about the potential reduction of the provincial debt.

We noted that government debt has been described as a burden on future generations, especially debt used to finance operating deficits (debt used to finance infrastructure is more likely to leave behind tangible capital assets that benefit future generations).

The government has presented a plan to eliminate its annual deficit in 2017/18 by restraining spending, and committed to subsequently reducing the net debt-to-GDP ratio to the pre-recession level of 27%. However, no clear strategy has been articulated for paying down current and future debt. Regardless of what strategy is being contemplated, we believe the government should provide legislators and the public with long-term targets for its plans to address current and projected debt. Therefore, we are reiterating our recommendation from last year.

RECOMMENDATION

In order to address the province's growing total debt burden, the government should work toward the development of a long-term total-debt reduction plan that is linked to its target of reducing its net debt-to-GDP ratio to its pre-recession level of 27%.

TREASURY BOARD SECRETARIAT RESPONSE

The first very important step in returning to a 27% net debt-to-GDP ratio is to balance the budget. Debt is incurred primarily for two reasons: to finance deficits and to make investments in capital assets. The government has a $130-billion plan over 10 years to invest in capital. Those capital investments are amortized over a period of time corresponding to the useful life of these assets. Once a balanced budget is achieved, the difference between the cash investment to build the assets and the amortization (which is a non-cash amount) will continue to increase the debt.

One of the objectives of investment in capital is to improve the economic growth of the province. As that investment increases growth, it supplements GDP growth and the net debt-to-GDP ratio will come down more quickly than it would without these investments in capital assets. A recent report found that, on average, investing $1 in public infrastructure in Canada raises GDP by $1.43 in the short term and up to $3.83 in the long term.

The government's plan therefore hinges on first balancing the budget, and then making investments in capital assets, which will add to economic growth, resulting in GDP growing more quickly than debt, and thereby lowering the net debt-to-GDP ratio to the government's 27% target.

The Province's Annual Report

The province's consolidated financial statements are key accountability documents that describe more than just the province's bottom line. The amounts reported in the statements, along with the notes, provide important information on the province's financial health.

However, many people, including those who do not have an accounting background, find government financial statements complicated and difficult to understand.

Each year the government provides a Financial Statement Discussion and Analysis (FSD&A) in its Annual Report to help the public understand the province's consolidated financial statements. The FSD&A is supposed to help users of the statements understand the impact of economic conditions and of government decisions on the province's financial results for the year, and its financial position at year end.

The FSD&A in this year's Annual Report compares the province's actual results for 2014/15 to the approved 2014/15 Budget presented in the previous year, and explains major variances. The Annual Report also outlines trends in a number of financial indicators over the past several years such as the composition of revenue by source and expense by sector, spending per capita (as a share of GDP), net debt to GDP and net debt per capita.

Overall, we believe the FSD&A accompanying the province's consolidated financial statements is easy to understand and highlights the financial management principles underlying the province's financial health over the past year. However, we have identified for consideration by the government a number of improvements that could be incorporated into the current FSD&A.

Strong public reports can be a powerful tool for legislators and the public to hold governments accountable, especially when the approved Budget is reflected in the report. A thorough FSD&A, in combination with audited financial statements, helps a government demonstrate its accountability with resources.

Financial Statement Discussion and Analysis

The FSD&A is an essential supplement to the basic financial statements that enhances user understanding of the results for future decision making and accountability by presenting insights into the province's financial position and operating results for the year. For this reason, the Public Sector Accounting Board (PSAB) has developed a framework for reporting FSD&A through their Statements of Recommended Practice (SORPs).

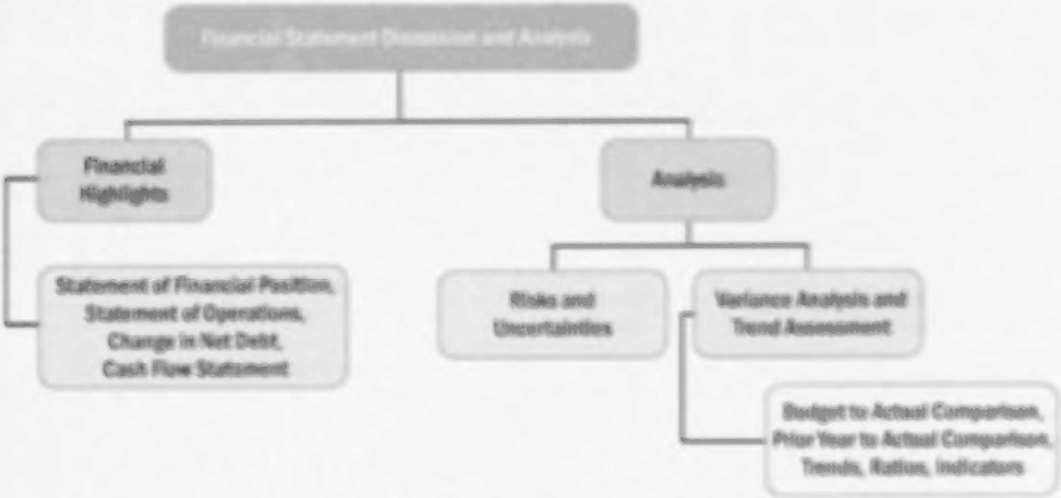
PSAB has issued four SORPs to provide general guidance on supplementary reporting beyond the financial statements. These are:

- SORP-1 *Financial Statement Discussion and Analysis*;
- SORP-2 *Public Performance Reporting*;
- SORP-3 *Assessment of Tangible Capital Assets*; and
- SORP-4 *Indicators of Financial Condition*.

The FSD&A Reporting Framework ("Framework"), discussed in SORP-1, is illustrated in **Figure 7**. The two main components are the financial highlights and analysis. While the financial highlights section summarizes significant

Figure 7: Financial Statement Discussion and Analysis Framework

Source of data: Public Sector Accounting Board, Statement of Recommended Practice 1


Financial Statement Discussion and Analysis
Financial Highlights
Analysis
Statement of Financial Position, Statement of Operations, Change in Net Debt, Cash Flow Statement
Risks and Uncertainties
Variance Analysis and Trend Assessment
Budget to Actual Comparison, Prior Year to Actual Comparison, Trends, Ratios, Indicators

events affecting the financial statements, the analysis section includes information that helps the reader understand the full story. This includes, for example, information on significant risks and uncertainties (and the strategies, policies and techniques used to manage them), significant variances between the current year's actual results and the previous year's Budget and actual results, and significant financial trends.

It is important to note that the SORPs do not form part of the PSAB accounting standards, and there is no requirement for the province to adopt them. However, PSAB encourages governments to use this Framework when preparing FSD&As to make public sector reports more understandable.

While the province has made improvements in its financial reporting practices, including those that relate to the province's financial condition using financial indicators as suggested in SORP-4, we have reviewed the FSD&A through the lens of the four SORPs and identified a few areas that would further support transparency and accountability.

Robust Variance Analysis on the Statement of Financial Position

All the financial statements are inter-linked and collectively reflect the province's financial health. One financial statement cannot tell a complete story. However, when all financial statements are combined, they provide powerful information for users. Similarly, the variance analysis that provides information on the financial health of the province would be incomplete without a discussion that includes the perspective of all the financial statements.

Over the past few years, we have noted that the FSD&A accompanying the province's financial statements has focused primarily on evaluating the annual revenue and expense results reported in the province's financial statements against the estimates in the Budget and to a lesser extent the previous year's actual results.

We believe that users would be better able to assess the state of the province's finances if a more robust discussion on the statement of financial position was presented in addition to a year over year comparison analysis. This would enhance readers' understanding of the demands on financial resources, and provide them with relevant information about the amount of funds readily available to meet the province's obligations and finance future operations.

Expand on Analysis of Material Risks and Uncertainties

Risks and uncertainties can have significant consequences to the province's economic well-being. FSD&A users need to understand the government's exposure to risk and uncertainties in order to make informed judgments about the implications of such risks. SORP-1 identified the three primary aspects of risks that could be addressed which include identifying the risk, assessing its potential impact and discussing the strategies and techniques adopted for managing the risk.

We realize it is a challenge to present a level of information that makes the report understandable and that enhance accountability, but we believe the FSD&A could expand its reporting of material financial risks and uncertainties.

While some of the reporting is reflected in the financial statements, information could be expanded in the FSD&A to include for example, revenue and expense sensitivities such as the impact of changes in GDP growth on taxation revenues and program expense estimates respectively. Such information would illustrate the impact of changes in the economy on financial results. We noted that prior to 2007/08 the province included this disclosure in its FSD&A.

Given that debt carrying costs are expected to rise from their current historic lows, a broader discussion of the province's risk management policies and strategies to address this issue would provide more value to users.

Assessment of Tangible Capital Assets

Tangible capital assets (TCAs) are a major component of the cost of the province's overall operations. Reporting on their physical condition provides important accountability information that helps users assess the government's stewardship of its resources.

PSAB issued *SORP 3 Assessment of Tangible Capital Assets* to provide guidance for those preparing a report on TCAs so that users can understand:

- the trends in the physical condition of TCAs;
- the adequacy of existing maintenance, replacement and renewal funding; and
- the current and future revenues needed to maintain, renew and replace TCAs.

TCAs are the second-largest item on the statement of financial position (after the debt), and they include administrative and service buildings, dams and engineering structures, provincial highways, bridges, hospital equipment, and many other assets.

Investing in infrastructure has been a central pillar of the province's economic plan, including a commitment to invest more than $130 billion in public infrastructure over 10 years.

The financial statements include information on the original cost of the assets and the recognition of this cost over the assets' useful life, and the FSD&A provides examples of several infrastructure projects in which the province invested during the year. We recognize that the financial statements and Annual Report may not be the ideal vehicles to meet the requirements of SORP 3. But, incorporating certain elements of the recommended practice into the province's Annual Report would be useful for users to assess the province's stewardship of these important resources.

We believe that given the importance of TCAs to the province's ability to provide services, supplemental reporting is necessary to fully understand the physical condition of the assets and the potential future cost of maintaining existing infrastructure.

RECOMMENDATION

We recommend the government consider the guidance outlined in the Public Sector Accounting Board's (PSAB) Statements of Recommended Practice in preparing its Financial Statement Discussion and Analysis for its Annual Report.

TREASURY BOARD SECRETARIAT RESPONSE

The province continues to strive to provide high quality financial reports that support transparency and accountability in reporting to the public, the legislature and other users. We appreciate the Auditor General's recommendation to enhance the analysis provided in the Financial Statement Discussion and Analysis section of the Annual Report. We will consider how the suggestions outlined in PSAB's Statements of Recommended Practice might help to enhance the quality of the province's future reporting.

Liability for Contaminated Sites

Contamination is the introduction into the environment of hazardous substances or organisms that exceed an environmental standard. It can come from many different sources, including commercial or industrial activity, waste disposal, and spills or leaks.

Areas of land or water that are affected by contamination, such as hazardous waste or pollution in concentrations that pose health and safety risks, and exceed specific levels under environmental standards, are referred to as contaminated sites. In many cases, these sites were contaminated at a time when environmental impacts of certain activities were not understood or considered.

Remediating a contaminated site refers to actions taken to reverse or stop the damage to the environment and human health. The actions may range from removal of hazardous material to restricting access by, for example, fencing in a site. The ultimate objectives of remediation are to remove the contaminant, minimize the risks to the environment and the public, and allow for future use of the site.

A new standard issued by PSAB, entitled *PS 3260, Liability for Contaminated Sites* (PS 3260), addresses ways to account for, and report on, liabilities associated with contaminated sites, and their remediation. This standard was in effect for the province's fiscal year ending March 31, 2015.

Under PS 3260, a liability for remediation of contaminated sites must be recognized when all of the following criteria have been met:

- an environmental standard exists;
- contamination exceeds the environmental standard;
- the government or government organization is directly responsible for or has accepted responsibility for the site;
- it is expected that future economic benefits will be given up to remediate the contamination; and
- a reasonable estimate can be made of the cost of remediation.

The standard calls for governments to calculate their contaminated site liabilities on a best estimate basis. All costs directly attributable to remediation, including post-remediation expenses, are to be included in the liability, and the costs to be estimated are those deemed necessary to bring a site up to an appropriate level for use. The total liability is based on the best available information, and is net of any expected recoveries.

The Office of the Provincial Controller Division of Treasury Board Secretariat (Provincial Controller Division) had the lead responsibility for implementing the new standard. Ministries and their consolidated agencies were required to identify, estimate and report to the Provincial Controller Division all liabilities related to contaminated sites in their respective jurisdictions.

The province recognized its liabilities for contaminated sites in accordance with PS 3260 in its March 31, 2015, Consolidated Financial Statements. We concurred with the decision by the Provincial Controller Division to implement this accounting change retroactively as an adjustment to the opening accumulated deficit, with no restatement of financial statements from previous periods. This treatment is supported by PSAB standards.

The resulting implementation of PS 3260 and the recognition of its liability for contaminated sites increased the environmental liabilities recognized in the province's consolidated financial statements by $1.685 billion, from $107.0 million in previous years. The new total liability as at March 31, 2015, was $1.792 billion.

The standard was difficult to implement because estimating environmental liabilities required considerable use of specialists, such as site assessors, engineers and others, to assess the extent of a site's contamination. It took time to establish a complete site inventory, and to populate that inventory with accurate, credible and reliable assessment information to allow for reasonable estimates of future remediation costs.

As expected, the number of sites identified was high, and the potential liabilities large. However, the Provincial Controller Division, working closely with ministries, was able to ensure the standard was implemented effectively and the estimated liability was reasonable.

Chapter 3, **Section [illegible]** of this Annual Report describes the work done by the Office of the Provincial Controller Division and key ministry stakeholders to implement PS 3260. Although we detail several of our concerns regarding the precision of the government's liability estimate and the need to improve it over time in that section, we were satisfied with the completeness of the ministries' efforts to identify all high-risk sites and to provide a reasonable estimate of the liability reported under the new standard.

Update on the Workplace Safety and Insurance Board

The Workplace Safety and Insurance Board (WSIB) is a statutory corporation created by the *Workplace Safety and Insurance Act, 1997* (Act). Its primary purpose is to provide income support and medical assistance to workers injured on the job. The WSIB receives no funding from government; it is financed through premiums on employer payrolls.

Over the past decade, we have raised a number of concerns about significant growth in the WSIB's unfunded liability, which is the difference between the value of the WSIB's assets and its estimated financial obligations to pay benefits to injured workers. Our 2009 *Annual Report* discussed the risk that the growth and magnitude of the unfunded liability posed to the WSIB's financial viability, including the ultimate risk of the WSIB being unable to meet its existing and future commitments to provide worker benefits.

We also urged the government to reconsider the exclusion of the WSIB's financial results from the province's consolidated financial statements, particularly if there were any risk that the province might have to provide funding to ensure the WSIB remained viable. The government excludes WSIB's financial results because the WSIB is classified as a "trust"; however, given the WSIB's significant unfunded liability and various other factors, we questioned whether the WSIB was operating like a true trust. Including the WSIB in the government's consolidated financial statements would have a significant impact on the government's fiscal performance.

As of June 30, 2010, the WSIB's unfunded liability had grown to almost $13 billion.

In September 2010, the WSIB announced an independent funding review to obtain advice on how to best ensure the long-term financial viability of Ontario's workplace safety and insurance system. The May 2012 report by Professor Harry Arthurs contained a number of recommendations, in particular calling for a new funding strategy for the WSIB with the following key elements:

- realistic assumptions, including a discount rate based on the best actuarial advice;
- moving the WSIB as quickly as feasible beyond a "tipping point" of a 60% funding Sufficiency Ratio (a tipping point is a crisis in which the WSIB could not generate sufficient funds to pay workers' benefits within a reasonable time frame and by reasonable measures); and
- putting the WSIB on course to achieve a 90%–110% funding Sufficiency Ratio within 20 years.

In response to our concerns and to the recommendations of the Arthurs report, the government passed Regulation 141/12 under the Act in June 2012. Effective January 1, 2013, it required the WSIB to ensure it meets the following funding Sufficiency Ratios by specified dates:

- 60% on or before December 31, 2017;
- 80% on or before December 31, 2022; and
- 100% on or before December 31, 2027.

The government also passed Ontario Regulation 338/13 in 2013. It came into force January 1, 2014, and changed the way the WSIB calculates the funding Sufficiency Ratio by changing the method used to value its assets and liabilities. Our Office concurred with this amendment.

The WSIB issues quarterly Sufficiency Reports and an audited Sufficiency Report to stakeholders annually. As of December 31, 2014, under Regulation 141/12 as amended by Regulation 338/13, the WSIB reported a Sufficiency Ratio of 70.9% (in 2013, the Sufficiency Ratio was 63.0%). This means the WSIB has already achieved its December 31, 2017 funding requirement.

The WSIB also submits an annual update of the Sufficiency Plan to the Ministry of Labour by June 30 of each year, in which it describes the measures taken to improve its funding Sufficiency Ratio. The most recent Plan was dated June 18, 2015, and was formally accepted by the Ministry of Labour on August 25, 2015.

The WSIB's operational and financial performance was strong in 2014, as illustrated in **Figure 8**, which provides a summary of the WSIB's operating results and unfunded liability compared to 2013.

The WSIB's continued strong operating performance in 2014 resulted from growth in premium revenues, improved return-to-work outcomes and better-than-expected investment returns (10.3% versus the target of 6.0%).

However, the WSIB's ability to maintain its current funding Sufficiency Ratio, achieve the 2022 and 2027 prescribed funding Sufficiency Ratios, and continue its strong financial performance remains subject to considerable uncertainty regarding future benefit costs, premium revenues and investment returns.

As a result of the government's and the WSIB's commitments to address the unfunded liability and the progress the WSIB had made so far, we supported the continued classification of the WSIB as a trust for the 2014/15 fiscal year and therefore the exclusion of the unfunded liability from the province's liabilities. However, we will continue to monitor the WSIB's progress on meeting the required funding Sufficiency Ratios and re-evaluate our position as necessary.

Sale of Hydro One Inc. and Hydro One Brampton Networks Inc.

In April 2015, the Premier's Advisory Council on Government Assets estimated Hydro One's valuation at between $13.5 billion and $15 billion; using this estimate, the province could realize up to $9 billion from the sale of 60% of Hydro One.

The government passed the *Building Ontario Up Act, 2015* (Act) in June 2015 to permit the sale of up to 60% of Hydro One Inc., and announced plans for an initial public offering of about 15% of common shares for the fiscal year ending March 31, 2016.

The Act requires the province, which is currently the sole shareholder of Hydro One, to retain at least 40% of the company's shares. It also stipulates that no other single shareholder can hold more than 10% of the total equity.

Figure 8: Workplace Safety and Insurance Board Operating Results and Unfunded Liability, 2014 and 2013 ($ million)

Source of data: WSIB Financial Statements and WSIB Fourth Quarter 2014 Report to Stakeholders

	2014	2013
Revenue		
Premiums	4,467	4,387
Net investment income	1,927	2,042
	6,394	**6,429**
Expenses		
Benefit costs	2,623	2,856
Loss of Retirement Income Fund contributions	59	62
Administration and other expenses	358	397
Legislated obligations and commitments	276	267
Remeasurement of employee defined benefit plans	296	(840)
	3,612	**2,742**
Total Comprehensive Income	**2,782**	**3,687**
Less: Non-controlling Interests	(242)	(264)
Total Comprehensive Income Attributable to WSIB Stakeholders	**2,540**	**3,423**
Unfunded Liability	**8,098**	**10,638**

Effective December 4, 2015, the Act removes the ability of my Office to conduct or report on value-for-money audits on the operations of Hydro One. As a result, our recent audit of Hydro One's management of electricity transmission and distribution assets, which we began before the Act was tabled, will be our last value-for-money audit on the company.

As of December 4, 2015, we will still have access to Hydro One's accounts and to information to enable us to conduct our annual audit of the province's consolidated financial statements and issue an audit opinion on the province's consolidated financial statements.

The government has also been proceeding with the sale of Hydro One Brampton Networks Inc., expected to bring the province about $607.0 million, net of any price adjustments. The sale is conditional on retiring approximately $193.0 million in debt owed by Hydro One Brampton Networks to Hydro One. In April 2015, the government announced that it had accepted an unsolicited offer by three local distribution companies, Enersource Corporation, Powerstream Holdings Inc. and Horizon Holdings Inc., to merge with Hydro One Brampton Networks.

Hydro One Brampton Networks is a large growing utility with mature operations, operating in a highly regulated environment, and is consistently profitable each year. As a result, it represents a low risk to potential investors, which would likely have attracted strong interest in the utility if it had been offered for sale publicly using a competitive process. However, since the province did not follow an open, competitive and transparent process for the sale of Hydro One Brampton Networks, it is not possible to determine whether it received the highest value when it accepted the unsolicited offer for the sale. Nevertheless, based on information provided to us by Hydro One and the Ministry of Energy, we estimate that the unsolicited $607.0 million offer is a reasonable offer for Hydro One Brampton Networks, and would provide the province with a fair return on its investment. Hydro One has invested $223.0 million in Hydro One Brampton Networks since it was purchased in 2000, and the government will invest another $193 million to retire the debt.

The merger of Hydro One Brampton Networks and the three purchasing utilities will create the second-largest local distribution company in the province by customer size. The Premier's Advisory Council, which recommended accepting the unsolicited offer, noted that consolidation of smaller utilities was favoured to drive efficiencies and resulting benefits to ratepayers.

On August 31, 2015, Hydro One declared a dividend, transferring all its shares in Hydro One Brampton Networks and the $193.0 million debt and $3.0 million accrued interest to the province. The Brampton sale was still in progress as of October 2015 and subject to approval of the Ontario Energy Board and the municipalities that own the other local distribution companies.

Use of Legislated Accounting Standards

PSAB has been largely successful to date in having its standards accepted by federal, territorial and local governments as the basis for the preparation of their financial statements.

However, as standards develop to address increasingly complex transactions—especially if standards have a significant impact on the accounting and measurement of transactions affecting a government's annual deficit, surplus, or net debt—governments are less willing to adopt PSAB standards because of the potential for volatility in annual results.

As discussed in our *2014 Annual Report*, some Canadian governments have begun in certain circumstances to legislate specific accounting treatments rather than applying independently established accounting standards. This includes Ontario, which several times in recent years passed legislation or amended regulations to enable it to prescribe accounting policies for its public-sector entities and its consolidated financial statements.

We reported in 2008 that it was a troubling precedent to adopt accounting practices through legislation rather than through an independent, consultative process such as that of PSAB. Although these legislated accounting treatments have not yet resulted in the province's consolidated financial statements materially departing from PSAB standards, the risk of such a material misstatement in the future has increased. The following is a chronological synopsis of these developments:

- The *Investing in Ontario Act, 2008* (Act) and related regulations allows for the government to provide additional transfers to eligible recipients from unplanned surpluses reported in its consolidated financial statements. Any transfers made under the Act would be recorded as an expense of the government for that fiscal year, regardless of PSAB accounting standards.
- In the 2009/10 fiscal year, the *Education Act* and the *Financial Administration Act* were amended. The *Education Act* amendments specified that the government could prescribe accounting standards for Ontario School Boards to use in preparing financial statements. The *Financial Administration Act* amendments allow the government to prescribe accounting standards for any public or non-public entity whose financial statements are included in the province's consolidated financial statements.
- In 2011, a regulation under the *Financial Administration Act* directed Hydro One, a fully owned Ontario government business enterprise, to prepare its financial statements in accordance with U.S. generally accepted accounting principles, effective January 1, 2012. The government has since told another fully owned government business enterprise, Ontario Power Generation Inc. (OPG), to do the same. American accounting rules allow rate-regulated entities to defer current expenses for recognition in future years; the government's direction to adopt these U.S. rules came in anticipation of the planned Canadian adoption of International Financial Reporting Standards (IFRSs), which at that time did not allow for such deferrals.
- Ontario government regulations now require transfers for capital acquisitions and transfers of tangible capital assets to be accounted for by transfer recipients as deferred contributions. The deferred amounts are to be brought into revenue by transfer recipients at the same rate as they recognize amortization expense on the related assets. We have historically supported this accounting because we believe that it best reflects the economic reality of the underlying transactions and complies with generally accepted accounting principles. However, PSAB standards in this area are being interpreted differently by many stakeholders.
- The 2012 Budget further amended the *Financial Administration Act* to provide the government with full authority to make regulations regarding the accounting policies and practices used to prepare its consolidated financial statements.

We have raised this issue of legislated accounting treatment on a number of occasions in our previous Annual Reports, but I will continue to raise it because we believe it is critical that Ontario continue to prepare its financial statements in accordance with generally accepted accounting standards, specifically those of PSAB, in order to maintain its financial credibility.

As the auditor of these statements, I am required to opine on "whether the consolidated financial statements of Ontario, as reported in the Public Accounts, present fairly information in accordance with Canadian public sector accounting standards." If the government reported a deficit or surplus under legislated accounting standards that was materially different than what it would be under

PSAB standards, I would have no choice but to include a reservation in my audit opinion.

Our Office has been able to issue "clean" opinions, without reservations, on the government's financial statements for the last 22 consecutive years. I sincerely hope that this will continue to be the case. As such, I will continue to raise the matter of the risk of legislated accounting treatments in future Annual Reports.

Significant Accounting Issues

As noted previously, it is our view that PSAB standards are the most appropriate for the province to use in preparing its consolidated financial statements. This ensures that information provided by the government about the surplus or the deficit is fair, consistent and comparable to data from previous years, allowing legislators and the public to assess the government's management of the public purse. It is worth noting that Ontario's approved Budget is also prepared on the same basis as its consolidated financial statements.

However, PSAB faces challenges in reaching a consensus among its various stakeholders, including financial statement preparers and auditors, on what accounting standards are most appropriate for the public sector.

We discuss three significant accounting issues (Financial Instruments, Rate-Regulated Accounting and Transfer Payments) that have posed a significant challenge to PSAB over the past few years. Their final accounting-standard determination will affect the way the province accounts for these items, and it will have a significant impact on the province's reported financial results.

Financial Instruments

Financial instruments include provincial debt, and derivatives such as currency swaps and foreign-exchange forward contracts. PSAB's project to develop a new standard for reporting financial instruments began in 2005, with a key issue being whether changes in the fair value of derivative contracts held by governments should be reflected in their financial statements and, in particular, whether such changes should affect a government's annual surplus or deficit.

In March 2011, PSAB approved a new public-sector accounting standard on financial instruments, effective for fiscal periods beginning on or after April 1, 2015. The new standard provides guidance on the treatment of government financial instruments, and is similar to comparable private-sector standards.

One of its main requirements is for certain financial instruments, including derivatives, to be recorded at fair value, with any unrealized gains or losses on these instruments recorded annually in a new financial statement of remeasurement gains and losses.

Some Canadian jurisdiction preparers, including Ontario, do not support the introduction of these fair-value remeasurements and the recognition of unrealized gains and losses. Ontario's view is that it uses derivatives solely to manage foreign currency and interest-rate risks related to its long-term-debt holdings, and that it has both the intention and ability to hold these derivatives until the debts associated with them mature. Accordingly, remeasurement gains and losses on the derivatives and their underlying debt would offset each other over the total period that such derivatives are held, and therefore would have no real economic impact on the government. The government argues that recording paper gains and losses each year would force the province to inappropriately report the very volatility that the derivatives were acquired to avoid. This, in its view, would not reflect the economic substance of government financing transactions and would not provide the public with transparent information on government finances.

In response to governments' concerns, PSAB committed to reviewing the new financial instruments standard by December 2013. PSAB completed its review of *Section PS 2601, Foreign Currency Translation*, and *Section PS 3450, Financial Instruments*, and in February 2014 confirmed the soundness of the principles underlying the new standard.

PSAB initially deferred the effective date for these new standards to fiscal years beginning on or after April 1, 2016. In 2015, however, PSAB further extended the effective date for the new standard to April 1, 2019, for senior governments, to allow for further study of reporting options for these complex financial instruments.

We have recommended in the past, and continue to recommend, ongoing dialogue between our Office and the Office of the Provincial Controller to review areas of common concern as PSAB reassesses the standard in preparation for implementing it on April 1, 2019.

Rate-regulated Accounting

Rate-regulated accounting practices were developed to recognize the unique nature of entities, such as electric utilities, whose rates are regulated. We have in recent years raised concerns about the appropriateness of recognizing such assets and liabilities in the province's consolidated financial statements.

Rate-regulated accounting is used by two of the province's government-controlled businesses enterprises, Ontario Power Generation Inc. (OPG) and Hydro One, whose rates to customers are approved by the government-established regulator, the Ontario Energy Board.

The regulator often allows the entity to recover certain current costs from the rate payer in future years, and these deferred costs are typically set up under rate-regulated accounting as assets on the entity's statement of financial position. Under normal accounting principles, these costs would be expensed in the year incurred.

We have accepted rate-regulated accounting treatment as allowable under Canadian generally accepted accounting principles, even though we question whether rate-regulated assets should be considered as bona fide assets in the government's consolidated financial statements.

We note that since the government controls both the regulator and the regulated entity, it has significant influence on which costs the entity will recognize in a given year. This could ultimately affect both electricity rates and the annual deficit or surplus reported by the government.

The use of rate-regulated accounting is under review by the International Accounting Standards Board (IASB) and Canada's Accounting Standards Board (AcSB). It is still temporarily allowed in certain circumstances under Canadian generally accepted accounting principles.

The issue goes back to December 2009, when the AcSB required publicly accountable enterprises to adopt International Financial Reporting Standards (IFRS) effective for fiscal years beginning on or after January 1, 2011. However, a number of rate-regulated entities expressed concerns at the time about the impact of the change on the reporting of their results, as IFRS did not provide guidance on rate-regulated accounting.

With the uncertainty regarding rate-regulated accounting, the Ontario government passed a regulation in 2011 that allowed both OPG and Hydro One to prepare their financial statements in accordance with U.S. generally accepted accounting standards, and subsequently directed them to do so.

These standards specifically require the entities to use rate-regulated accounting. However, OPG and Hydro One are recorded and consolidated in the province's financial statements using Canadian generally accepted accounting principles.

In our previous annual reports, we have observed that the era of rate-regulated accounting appeared to be ending for jurisdictions like Canada, which were converting to IFRS. Our comments were based on the fact that in January 2012, Canada's AcSB reaffirmed that all government business enterprises should prepare their financial statements in accordance with IFRS for fiscal years beginning on or after January 1, 2012. At that time, no standard specifically addressed rate-regulated activities and so, by default, IFRS standards did not permit rate-regulated accounting.

However, the landscape continued to change. The United States has not adopted IFRS, and continues to allow rate-regulated accounting. In an effort to reconcile U.S. generally accepted accounting principles with IFRS, Canada's AcSB granted a one-year extension in March 2012 to the mandatory IFRS changeover date for entities with qualifying rate-regulated activities. In September 2012, it granted another extension, to January 1, 2014, and extended it again the following year to January 1, 2015.

The IASB issued an interim IFRS standard in January 2014 with an effective date for fiscal years beginning on or after January 1, 2016. The interim standard eased the adoption of IFRS for rate-regulated entities by allowing them to continue to apply existing policies for their deferred rate-regulated balances upon adoption of IFRS starting on January 1, 2015. Essentially, the interim standard provides a first-time adopter of IFRS with relief from having to derecognize their rate-regulated assets and liabilities. It achieves that by allowing s rate-regulated entities to early adopt *IFRS 14 Regulatory Deferral Accounts* until the IASB completes its comprehensive project on accounting for such assets and liabilities.

Rate-regulated accounting has a significant impact on the government's financial statements. For example, OPG recognized $2.8 billion in net rate-regulated assets as of March 31, 2015. Future reporting under IFRS that does not accommodate rate-regulated accounting may increase the volatility of OPG and Hydro One's annual operating results. This in turn could lead to volatility in the province's annual deficit or surplus and may impact the government's revenue and spending decisions.

We noted in our *2014 Annual Report* that if the government continued to direct OPG and Hydro One to use U.S. generally accepted accounting principles (GAAP) in preparing their financial statements, and continues to use the former Canadian generally accepted accounting principles that do not include IFRS to prepare the province's consolidated financial statements, we will need to assess the differences that result from the government not following accounting standards of PSAB and AcSB. These differences will need to be quantified, and if material, we would most likely treat them as errors in the consolidated financial statements.

The effect of OPG and Hydro One not adopting IFRS on January 1, 2015, was determined to be immaterial to the province's March 31, 2015 consolidated financial statements. The reporting periods of OPG and Hydro One differ from those of the province. Changes in their financial reporting as a result of the new standard will be reflected only as of the province's 2015/16 consolidated financial statements.

My Office will work with the Office of the Provincial Controller Division in 2015/16 to plan for changes related to the consolidation of OPG and Hydro One as a result of changes in accounting standards. We will likely be seeking an audit opinion from the external auditors of OPG and Hydro One attesting to the differences between their financial statement results and the financial position under IFRS and U.S. GAAP.

Transfer Payments

PSAB's Government Transfers project began a number of years ago to address several accounting issues related to monetary transfers from one level of government to another, including the following:

- appropriately accounting for multi-year funding provided by one government to another;
- clarifying the authorization needed for transfers to be recognized by both the government making the transfer, and the one receiving it;
- clarifying the degree to which stipulations imposed by a transferring government affect the timing of transfer recognition in the accounts of both the transferring and recipient governments; and

- appropriately accounting for transfers that are to be used to acquire or construct tangible capital assets.

After substantial discussion and the issuing of several documents for comments, PSAB approved a new standard on government transfers in December 2010, effective for fiscal years beginning on or after April 1, 2012.

One of the most difficult areas PSAB had to address in developing the standard was how recipients should account for multi-year transfers. If the federal government makes a lump-sum transfer near the end of a fiscal year to a province to fund services over several years, the question arises as to whether the province should immediately recognize the full amount of the grant as revenue, or recognize the revenue spread out over the years it provides the federally funded services.

A similar issue arises with respect to capital transfers from the province to entities such as school boards and hospitals. A number of stakeholders held the view that capital transfers should be recognized as revenue when the recipient government incurs the expenditures making it eligible to receive the grant. However, other stakeholders held that such transfers should be brought into revenue over time as the tangible capital asset acquired or constructed with the transferred funds is used to provide public services.

The new standard generally recommends that recipients should recognize a government transfer as revenue when it has been authorized and the recipient has met all eligibility criteria. However, this requirement does not apply when the transferring government creates a liability for the recipient government by imposing stipulations on the use of the transfer, or specifies actions the recipient needs to take to keep the transfer.

The standard also specifies that actions and communications by the recipient that restrict the use of transferred funds for a specific purpose can create a liability. To meet PSAB's liability definition, there must be no discretion to avoid it, there must be a future outflow of economic resources to settle it, and it must be the result of past transactions and events. Whether the facts and circumstances surrounding a particular transfer support the recognition of a liability is a matter of professional judgment. If a transfer is deemed to create a liability for the recipient government, the transfer is deferred and recognized as revenue as the liability is settled over time.

As we highlighted in our *2013 Annual Report*, rather than enhancing consistency and comparability in accounting for government transfers, the new standard appears to have created confusion. Its requirements are broad and open to interpretation, resulting in significant differences in its application. This is a concern, because transfers are usually a significant government activity and can have a great impact on reported results. In the 2014/15 fiscal year, Ontario recorded transfer-payment expenses of approximately $50.0 billion and transfer revenue from the federal government of around $22.0 billion.

Many stakeholders had asked PSAB to consider amending the transfers standard because of inconsistencies in interpretation and application. PSAB took the view that more empirical evidence is needed before it will consider amending the standard.

One significant area where consensus has been difficult to reach is accounting for transfers received to fund the acquisition or construction of tangible capital assets. Depending on the circumstances, such transfers might be recognized as revenue when received, when the asset has been acquired or constructed, or over the service life of the asset.

While we acknowledge the controversy over this new standard, we believe that it supports the initial accounting of government transfers and external contributions as deferred capital contributions, with both being recorded as revenue over the useful life of the related tangible capital assets based on transfer stipulations and recipient actions and communications. As such, we agreed with $6.3 billion in deferred capital contributions being recorded in 2014/15 in the province's March 31, 2015, Consolidated Financial Statements ($5.8 billion in 2013/14).

PSAB is carrying out a post-implementation review of *PS 3410, Government Transfers*, because it is aware of different interpretations and applications of the standard. PSAB hopes this post-implementation review will help it assess implementation challenges encountered by stakeholders, and the nature, extent and cause of any ongoing issues. PSAB noted that it will use responses to the review, along with other procedures, to determine next steps in dealing with the interpretation and application of the standard.

In September 2015, PSAB reported that it had considered the preliminary results of the post-implementation review of *PS 3410, Government Transfers*. PSAB also discussed the options for next steps and requested staff to prepare an options paper for its consideration at a meeting scheduled for December 2015.

We look forward to PSAB sharing the results of the review once it has deliberated on its findings and next steps.

Public Sector Accounting Board Initiatives

This section outlines some additional items that PSAB has been studying over the past year that might affect preparation of the province's consolidated financial statements in the future.

Concepts Underlying Financial Performance

PSAB's existing conceptual framework is a set of interrelated objectives and fundamental principles that support the development of consistent accounting standards. Its purpose is to instill discipline into the standard-setting process to ensure that accounting standards are developed in an objective, credible and consistent manner that serves the public interest.

In 2011, PSAB formed the Conceptual Framework Task Force in response to concerns raised by several governments regarding current revenue and expense definitions, which they contend cause volatility in reported results and distort budget-to-actual comparisons. The task force's objective was to review the appropriateness of the concepts and principles in the existing conceptual framework for the public sector.

The task force's first step was to seek input from stakeholders on the building blocks of the conceptual framework; these will form the basis for evaluating the existing concepts underlying the measurement of financial performance. To this end, the task force has issued two consultation papers: *Characteristics of Public Sector Entities* and *Measuring Financial Performance in Public Sector Financial Statements*. Respondents to these consultation papers were in general agreement with the key proposals.

In March 2015, the task force issued a third consultation paper that proposed a new reporting model and draft principles on public-sector characteristics, financial statement objectives, qualitative characteristics, elements, recognition, measurement and presentation. The task force had asked for comments to be submitted on the third consultation paper by August 31, 2015.

The task force's next step is to develop a statement of principles in the fourth quarter of 2015 that will take into account input received from the three Consultation Papers and propose a revised conceptual framework and reporting model for public-sector entities.

Improvements to Not-for-profit Standards

The Accounting Standards Board (AcSB) and PSAB initiated a joint project in 2011 to improve accounting standards for not-for-profit organizations, including those controlled by the government.

These standards are followed by many organizations funded by the Ontario government.

In April 2013, the Joint Not-for-Profit Task Force established to lead this project issued a statement of principles containing 15 proposals, the most significant of which stipulated that:

- Contributions received would be immediately recognized as revenue, unless the terms of the contribution give rise to an obligation that met the definition of a liability.
- Government not-for-profit organizations would present "net debt" indicators, a statement of net debt as well as budgeted information.
- Government not-for-profit organizations would follow the guidance in CPA Canada's *Public Sector Accounting Handbook* on the capitalization, amortization, write-down and disposal of tangible capital assets.
- Intangibles, works of art and historical treasures (including collections), and economic interests would continue to be recognized in financial statements.

The statement of principles has generated high levels of interest from stakeholders in the public and private not-for-profit sectors because its proposals are expected to have far-reaching implications on the financial statements of not-for-profit organizations. For example, the statement of principles proposes to remove the not-for-profit organization's ability to defer capital contributions and recognize these amounts in revenue on a basis consistent with the amortization recorded on the related tangible capital asset. The statement of principles proposes that capital contributions be recorded in revenue, except in those circumstances where the contribution gives rise to an obligation that meets the definition of a liability.

Many not-for-profit organization stakeholders are concerned that an organization's annual results would be distorted if it is not allowed to follow the traditional accounting practice of deferring capital contributions over the useful life of the related tangible capital asset.

As well, the proposed change will challenge the province's ability to hold its controlled government not-for-profit organizations accountable for balanced budgets in those later years when amortization is recorded on the tangible capital asset for which the capital contribution was recorded in revenue in an earlier period. The AcSB and PSAB received about 300 letters on this topic and are analyzing them in considering next steps.

Asset Retirement Obligations

The objective of this project is to develop a standard that addresses the reporting of legal obligations associated with the retirement of long-lived tangible capital assets currently in productive use. For example, there may be obligations associated with decommissioning an electricity generating facility.

PSAB issued a statement of principles in August 2014 that proposes a new section on retirement obligations associated with tangible capital assets controlled by a public-sector entity. The main features of this statement of principles are as follows:

- A retirement obligation should be recognized when there is a legal, constructive or equitable obligation to incur retirement costs in relation to a tangible capital asset.
- Upon initial recognition, the entity would increase the carrying amount of the related tangible capital asset by the same amount as the liability. Therefore, the initial recognition of an asset retirement obligation will increase net debt reported by a public-sector entity.
- The estimate of a liability for retirement obligation should include costs directly attributable to retirement activities, including post-retirement operation, maintenance and monitoring.
- A present value technique is often the best method with which to estimate the liability.
- The carrying amount of the liability for a retirement obligation should be reviewed at each financial reporting date.

- Subsequent remeasurement of the liability can result in either a change in the carrying amount of the related tangible capital asset or an expense.

PSAB asked stakeholders to submit comments on the statement of principles by November 21, 2014, and is currently examining those comments. It expects to develop an exposure draft in the second quarter of 2016.

Revenue

Two major sources of government revenue—government transfers and tax revenue—are addressed in the sections *PS 3410 Government Transfers* and *PS 3510 Tax Revenues* of the CPA Canada *Public Sector Accounting Handbook* (*Handbook*). However, the *Handbook* does not specifically address other revenues.

In September 2011, PSAB approved an amended project proposal on revenues to address the limited guidance in the *Handbook* on revenues that are common in the public sector. PSAB did not initiate the project to review the existing revenue standards; rather, it aimed to put in place overarching guidance to address questions about when revenues are recognized, and how they are measured and presented in the financial statements.

In August 2013, PSAB issued a Statement of Principles containing proposals that will affect the reporting of a broad range of revenues. The purpose of the project and Statement of Principles is to expose a new Section on revenues that would apply to public sector entities that follow the *Handbook*.

The Statement of Principles:

- focuses on two main areas of revenue:
  - exchange transactions; and
  - unilateral (non-exchange) transactions
- notes the presence of performance obligations for the public sector entity as the distinguishing feature of an exchange transaction;
- defines performance obligations as enforceable promises to provide goods or services;
- recognizes that revenue from an exchange transaction constitutes the public sector entity's meeting a performance obligation;
- recognizes unilateral revenues when there is the authority and a past event that gives rise to a claim of economic resources; and
- allows that revenue is not reduced when collectability is uncertain; instead, a corresponding allowance for doubtful accounts is established for the associated receivable.

The next step in the project is for an exposure draft to be issued in the third quarter of 2016.

Employment Benefits

In December 2014, PSAB approved an Employment Benefits project to improve the existing sections by taking into account changes in the related accounting concepts and new types of pension plans that were developed since the existing sections were issued decades ago.

The project aims to review the existing sections, *PS 3250 Retirement Benefits* and *PS 3255 Post-employment Benefits, Compensated Absences and Termination Benefits*. The first stage of the project will focus on key issues which include, but are not limited to, deferral of experience gains and losses, discount rate, shared risk plans, multi-employer defined benefit plans and vested sick leave benefits. The second stage will determine how to account for the new types of pension plans.

The invitation to comment is currently being developed PSAB expects to approve the invitation by March 2016.

Related Party Transactions

PSAB initiated a project in September 2010 with the objective of issuing a new accounting standard that defines a related party in the context of the public sector and describes the measurement and disclosure requirements for related parties and their transactions. Transactions between related parties may not be conducted under the same terms as transactions between unrelated parties; detailed disclosures allow users to assess the effect of related party transactions on a reporting entity's financial position and financial performance.

Following the publication of several documents for comment, including an exposure draft and a re-exposure draft, PSAB issued a second re-exposure draft for public comment in 2014. This re-exposure draft proposed to create two *Public Sector Accounting Handbook* sections on related party transactions: *Related Party Disclosures and Inter-entity Transactions*.

The objective of the first proposed section, *Related Party Disclosures*, is to define a related party and to provide guidance on disclosing sufficient information about the terms and conditions of related party transactions. The key proposals included in this section are:

- A related party exists when one party has the ability to exercise control or shared control over the other. Two or more parties are related when they are subject to common control or shared control.
- Individuals who are members of key management personnel and close members of their family are included in the definition of related parties; however, the standard would not require disclosure of key management personnel compensation arrangements, expense allowances and other similar payments routinely paid in exchange for services rendered. The determination of whether an individual is included in key management personnel requires judgment.
- Two entities that have a member of key management personnel in common may be related depending upon that individual's ability to affect the policies of both entities in their mutual dealings.
- Disclosure should include adequate information about the nature of the relationship with related parties involved in transactions, including the types of related party transactions that have been recognized, the amounts of the transactions classified by financial statement category; the basis of measurement used, the amount of the outstanding balances at period end, and the terms and conditions attached to those balances.
- Disclosure is required only when transactions and events between related parties have or could have a material financial effect on the financial statements.
- Determining which related party transactions to disclose and the level of detail to provide is a matter of judgment.

The purpose of the second section, *Inter-entity Transactions*, is to provide guidance on how to account for transactions that take place between organizations under the common control of a government entity. The most significant proposals are:

- Inter-entity transactions occurring in the normal course of operations and on similar terms and conditions to those adopted if the entities were dealing at arm's length should be recorded at the exchange amount. Transactions in the normal course of a business generally relate to ongoing operating revenues and expenses and do not include the transfer of assets or liabilities.
- Transfers of assets or liabilities between entities are measured based on the amount of the consideration received in exchange:
  - if the consideration received approximates the fair value of the assets or liabilities transferred, the transaction should be measured at the exchange amount;
  - if the consideration received is nominal or nil, the transaction should be measured at the carrying amount by the provider and at the carrying amount or fair value by the recipient; and
  - in all other instances, the transaction should be measured at the carrying amount.
- *Allocated costs and recoveries should be measured at the exchange amount.*

PSAB accepted feedback on the revised proposals until mid-September 2014. After discussing the responses and the changes proposed by the task force to address the comments, PSAB approved two new *Handbook* sections in December 2014—*Related Party Disclosures* and *Inter-entity Transactions*—and issued them in February 2015. The new standards are to apply to fiscal years beginning on or after April 1, 2017. Early adoption is possible. These sections would be applied prospectively.

Statutory Matters

Under Section 12 of the *Auditor General Act*, the Auditor General is required to report on any Special Warrants and Treasury Board Orders issued during the year. In addition, Section 91 of the *Legislative Assembly Act* requires that the Auditor General report on any transfers of money between items within the same vote in the Estimates of the Office of the Assembly.

Legislative Approval of Expenditures

Shortly after presenting its Budget, the government tables detailed Expenditure Estimates in the Legislative Assembly outlining, on a program-by-program basis, each ministry's planned spending. The Standing Committee on Estimates (Committee) reviews selected ministry estimates and presents a report on this review to the Legislature. Orders for Concurrence for each of the estimates selected by the Committee, following a report by the Committee, are debated in the Legislature for a maximum of two hours before being voted on. The estimates of those ministries that are not selected are deemed to be passed by the Committee, reported to the Legislature, and approved by the Legislature.

After the Orders for Concurrence are approved, the Legislature still needs to provide its final approval for legal spending authority by approving a Supply Act, which stipulates the amounts that can be spent by ministries and legislative offices, as detailed in the estimates. Once the Supply Act is approved, the expenditures it authorizes are considered to be Voted Appropriations. The *Supply Act, 2015*, which pertained to the fiscal year ended March 31, 2015, received Royal Assent on March 31, 2015.

The Supply Act does not receive Royal Assent until after the start of the fiscal year—and sometimes even after the related fiscal year is over—so the government usually requires interim spending authority prior to its passage. For the 2014/15 fiscal year, the Legislature passed the *Interim Appropriation for 2014-2015 Act, 2014* (Interim Act). The Interim Act received Royal Assent on July 24, 2014, and authorized the government to incur up to $87.3 billion in public service expenditures, $2.3 billion in investments, and $135.3 million in legislative office expenditures. The Interim Act was made effective as of April 1, 2014.

The *Interim Act* provided the government with sufficient authority to allow it to incur expenditures from April 1, 2014, to when the *Supply Act, 2015*, received Royal Assent on March 31, 2015. The spending authority provided under the Interim Act was intended to be temporary, and it was repealed when the *Supply Act, 2015*, received Royal Assent. The *Supply Act, 2015*, also increased total authorized expenditures of the legislative offices from $135.3 million to $190 million.

Special Warrants

If the Legislature is not in session, Section 1.0.7 of the *Financial Administration Act* allows for the issuance of Special Warrants authorizing the incurring of expenditures for which there is no appropriation by the Legislature or for which the appropriation is insufficient. Special Warrants are authorized by Orders in Council and approved by the Lieutenant Governor on the recommendation of the government.

For the fiscal year ending March 31, 2017, one Special Warrant totalling $18,058,194,400 was approved by an Order in Council dated May 5, 2016. This Special Warrant was required because there was no appropriation by the Legislature for required government expenditures, as the Legislature was not in session. As a result, the Special Warrant allowed ministries and legislative offices to incur expenditures from May 5, 2016, until the Interim Act received Royal Assent on July 28, 2016.

Treasury Board Orders

Section 1.0.8 of the *Financial Administration Act* allows the Treasury Board to make an order authorizing expenditures to supplement the amount of any voted appropriation that is expected to be insufficient to carry out the purpose for which it was made. The order may be made only if the amount of the increase is offset by a corresponding reduction of expenditures to be incurred from other voted appropriations not fully spent in the fiscal year. The order may be made at any time before the books of the government for the fiscal year are closed. The government considers the books to be closed when any final adjustments arising from our audit have been made and the Public Accounts have been published and tabled in the Legislature.

Even though the *Treasury Board Act, 1991* was repealed and re-enacted within the *Financial Administration Act* in December 2009, subsection 5(4) of the repealed act was retained. This provision allows the Treasury Board to delegate any of its duties or functions to any member of the Executive Council or to any public servant employed under the *Public Service of Ontario Act, 2006*. Such delegations continue to be in effect until replaced by a new delegation. Since 2006, the Treasury Board has delegated its authority for issuing Treasury Board Orders to ministers to make transfers between programs within their ministries, and to the Chair of the Treasury Board for making program transfers between ministries and making supplementary appropriations from contingency funds. Supplementary appropriations are Treasury Board Orders in which the amount of an appropriation is offset by a reduction in the amount available under the government's centrally controlled contingency fund.

Figure 9 summarizes the total value of Treasury Board Orders issued for the past five fiscal years, and **Figure 10** summarizes Treasury Board Orders for the fiscal year ended March 31, 2017, by month of issue.

According to the Standing Orders of the Legislative Assembly, Treasury Board Orders are to be printed in *The Ontario Gazette*, together with explanatory information. Orders issued for the 2016/17 fiscal year are expected to be published in *The Ontario Gazette* in December 2017. A detailed listing of 2016/17 Treasury Board Orders, showing

Figure 9: Total Value of Treasury Board Orders, 2012/13–2016/17 ($ million)

Source of data: Treasury Board

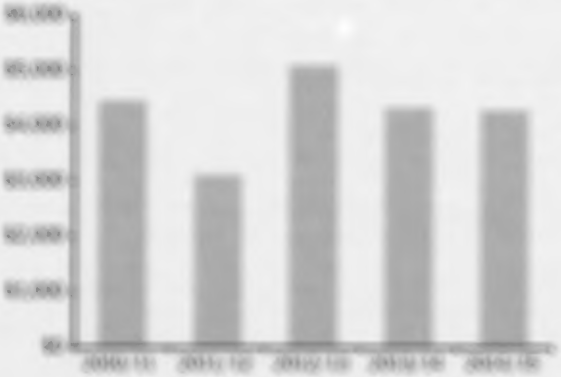


Figure 10: Total Value of Treasury Board Orders by Month Relating to the 2016/17 Fiscal Year

Source of data: Treasury Board

Month of Issue	#	Authorized ($ million)
April 2016–February 2017	[illegible]	[illegible]
March 2017	[illegible]	[illegible]
April 2017	9	[illegible]
July 2017	1	[illegible]
Total	**[illegible]**	**[illegible]**

the amounts authorized and expended, is included as Exhibit 4 of this Annual Report.

Transfers Authorized by the Board of Internal Economy

When the Board of Internal Economy authorizes the transfer of money from one item of the Estimates of the Office of the Assembly to another item within the same vote, Section 91 of the *Legislative Assembly Act* requires that we make special mention of the transfer(s) in our Annual Report. Accordingly, **Figure 11** shows the transfers made within Vote 201 with respect to the 2014/15 Estimates.

Uncollectible Accounts

Under Section 5 of the *Financial Administration Act*, the Lieutenant Governor in Council, on the recommendation of the Minister of Finance, may authorize an Order in Council to delete from the accounts any amounts due to the Crown that are the subject of a settlement or deemed uncollectible. The amounts deleted from the accounts during any fiscal year are to be reported in the Public Accounts.

Figure 11: Authorized Transfers Relating to the Office of the Assembly, 2014/15 Fiscal Year

Source of data: Board of Internal Economy

From:		$
Item 10	Members' Office Support Services	(350,000)
To:		
Item 8	Caucus Support Services	350,000

In the 2014/15 fiscal year, receivables of $354.5 million due to the Crown from individuals and non-government organizations were written off. (The comparable amount in 2013/14 was $390.1 million.) The write-offs in the 2014/15 fiscal year related to the following:

- $107.4 million for uncollectible retail sales tax ($146.7 million in 2013/14);
- $101.1 million for uncollectible corporate tax ($104.3 million in 2013/14);
- $59.7 million for uncollectible receivables under the Student Support Program ($68.0 million in 2013/14);
- $20.3 million for uncollectible tobacco tax ($4.4 million in 2013/14);
- $11.8 million for uncollectible receivables under the Ontario Disability Support Program ($8.6 million in 2013/14);
- $7.2 million for uncollectible receivable related to a bankrupt forestry company ($0.1 million in 2013/14)
- $ 47.0 million for other tax and non-tax receivables ($58.0 million in 2013/14).

Volume 2 of the 2014/15 Public Accounts summarizes the write-offs by ministry. Under the accounting policies followed in the preparation of the province's consolidated financial statements, a provision for doubtful accounts is recorded against accounts receivable balances. Most of the write-offs had already been expensed in the government's consolidated financial statements. However, the actual write-off in the accounts required Order in Council approval.

Chapter 3

Reports on Value-for-money Audits

Our value-for-money (VFM) audits are intended to examine how well government ministries, organizations in the broader public sector, agencies of the Crown and Crown-controlled corporations manage their programs and activities. These audits are conducted under subsection 12(2) of the *Auditor General Act*, which requires that the Office report on any cases observed where money was spent without due regard for economy and efficiency or where appropriate procedures were not in place to measure and report on the effectiveness of service delivery. Where relevant, such audits also encompass compliance issues. Essentially, VFM audits delve into the underlying operations of the ministry program or organization being audited to assess both their cost-effectiveness and the service level the public is receiving. This chapter contains the conclusions, observations and recommendations for the VFM audits conducted in the past audit year.

The ministry programs and activities and the organizations in the broader public sector audited this year were selected by the Office's senior management on the basis of various criteria, such as a program's or organization's financial impact, its perceived significance to the Legislative Assembly, related issues of public sensitivity and safety, and the results of past audits and related follow-up work.

We plan, perform and report on our value-for-money work in accordance with the professional standards for assurance engagements established by the Chartered Professional Accountants of Canada (formerly the Canadian Institute of Chartered Accountants), which encompass value for money and compliance work. They entail conducting the tests and other procedures that we consider necessary, including obtaining advice from external experts when appropriate.

Before beginning an audit, our staff conduct in-depth research into the area to be audited and meet with auditee representatives to discuss the focus of the audit, including our audit objectives and criteria. During the audit, staff maintain an ongoing dialogue with the auditee to review the progress of the audit and ensure open lines of communication. At the conclusion of the audit fieldwork, which is normally completed by late spring of that audit year, significant issues are discussed with the auditee and a draft audit report is prepared. Then senior Office staff meet with senior management from the auditee to discuss the draft report and the management responses to our recommendations. In the case of organizations in the broader public sector, discussions are also held with senior management of the funding ministry.

Once the content and responses for each VFM audit report are finalized, the VFM audit reports are incorporated as sections of this chapter of the Annual Report.

Chapter 3

Section

3.01 CCACs—Community Care Access Centres—Home Care Program

1.0 Background

Overview: Ontario's 14 Community Care Access Centres (CCACs) are responsible for providing home-care services to Ontarians who might otherwise need to stay in hospitals or long-term-care homes. This includes frail elderly people and people with disabilities who need help to live as independently as possible in their own homes.

Home care is funded by the Ministry of Health and Long-Term Care (Ministry). To be eligible for home-care services, a person must be insured under the Ontario Health Insurance Plan. Referrals to home-care services can come from hospitals, family physicians, or clients and/or their families.

Home care used to serve primarily clients with low to moderate care needs, but now serves clients with increasingly more complex medical and social-support needs. This change came about primarily after July 2009, when all Ontario hospitals were expected to keep alternate-levels-of-care patients to a minimum (alternate levels of care refers to when a patient is occupying a bed in a hospital, but does not require the intensity of resources or services provided in this care setting). In the year ending March 31, 2015, 60% of home-care clients were senior adults (aged 65 years and over), 20% were adults (aged 18 to 64 years), 15% were children and 5% were palliative.

Service Delivery Model: CCACs, through their staff of care co-ordinators, assess individuals to determine if their health needs qualify for home-care services, and to develop care plans for those who qualify. CCACs then contract with about 160 private-sector service providers to provide home-care services directly to clients, in the form of professional (i.e., nursing and therapy) and/or personal support (i.e., bathing and toileting) services. These service providers are either for-profit or not-for-profit. The CCAC care co-ordinators manage client cases, and reassess and adjust care plans on an ongoing basis.

Community Support Services: CCAC care co-ordinators also act as navigators to community services and can refer clients to the approximately 800 community support service agencies (support agencies) that offer community support services (such as meals on wheels, transportation, respite care, and home maintenance and repair) and homemaking services (such as housekeeping and laundry support). Some community support services and homemaking services may require co-payment from clients. Similar to CCACs, support agencies are funded by the Ministry through the Local Health Integration Networks.

Because support agencies were historically set up by volunteers to serve local needs, these services are not available everywhere. Generally, urban areas offer more community support services than rural and northern areas, but still, urban areas may not have all the services needed to meet changing needs.

The role of support agencies may soon change: a regulatory amendment made in July 2014 and a related set of ministry guidelines issued in April 2014 allow support agencies, in addition to CCACs, to provide personal support services for lower-needs clients. Once a client is referred to a support agency, the agency then becomes responsible for that client, including care co-ordination and provision of personal support services.

Accountability Relationship: Each CCAC is accountable to one of the 14 Local Health Integration Networks (LHINs), which are mandated to fund health-service providers such as hospitals, CCACs and support agencies in defined geographic regions. The LHINs, in turn, are accountable to the Ministry, which sets the overall strategic direction for health care in Ontario.

The Ontario Association of Community Care Access Centres (Association) was incorporated in 1998 to represent all 14 CCACs. It receives most of its funding from the Ministry and the CCACs through membership fees. Effective May 2015, the Association's board of directors is composed of three externally recruited members in addition to nine representatives from CCACs, for a total of 12 members. With a staff of about 190, the Association provides shared services such as procurement, policy and research, and information management to the CCACs.

Spending on Home Care: For the year ending March 31, 2015, Ontario spent a total of $2.5 billion to provide home-care services to 713,500 clients, as shown in **Figure 1**. (This figure shows CCACs' spending on home-care services only rather than CCAC's total expenses, in the year ending March 31, 2015. In comparison, a similar figure included in the *Special Report on Community Care Access Centres—Financial Operations and Service Delivery* that our Office tabled in September 2015 showed total CCAC expenses, and for a different year—2014.) This represents a 42% increase in funding and

Figure 1: Home-care Funding and Clients Served by CCACs, Year Ending March 31, 2015

Source of data: Ministry of Health and Long-Term Care

	Home-care Funding ($ million)	# of Clients Served	Home-care Funding per Client Served ($)
North Simcoe Muskoka	100	24,932	4,027
Champlain	231	58,305	3,957
North East	136	35,652	3,802
South East	122	32,349	3,769
Hamilton Niagara Haldimand Brant	311	82,686	3,756
Erie St. Clair	142	38,790	3,668
North West	53	14,783	3,564
South West	210	59,346	3,547
Central	285	82,587	3,457
Waterloo Wellington	133	38,986	3,403
Central East	276	82,611	3,346
Toronto Central	250	74,822	3,338
Mississauga Halton	160	49,004	3,271
Central West	111	38,640	2,879
Provincial Total	**2,520**	**713,493**	**3,532**

a 22% increase in the number of clients served compared to the year ending March 31, 2009 (a year before our last audit of home-care services); in 2008/09, CCACs spent $1.76 billion to serve about 586,400 clients.

Over the past decade between 2005/06 and 2014/15, overall CCAC funding (which includes funding for home care and other CCAC services, such as long-term-care home placement) has increased by 73% from $1.4 billion to $2.5 billion, but has remained a relatively constant 4% to 5% of overall provincial health spending. In recent years, the Ministry has increased funding to the CCACs in several areas. For instance, in the 2015 provincial Budget, the government announced funding increases in the home and community sector over three years between 2015/16 and 2017/18 at 5% a year, for a total of $750 million. The government did not specify how these increases would be allocated to the 14 CCACs and the approximately 800 support agencies in the sector. In addition, to help CCACs meet the government's five-day wait-time target for nursing and personal support services for complex clients, the Ministry allocated $75 million to the CCACs through the LHINs in each of 2013/14 and 2014/15: $15 million went toward nursing services and $60 million to personal support services. These funding increases show that the Ministry continues to work toward expanding home and community care to ensure that people receive care as close to home as possible, one of several priorities set out in the September 2014 mandate letter from the Premier to the Minister of Health and Long-Term Care.

CCACs must not spend more than they receive each year according to their respective agreements with their funding LHIN.

Government Priority: In April 2014, the Minister of Health and Long-Term Care committed to a vision of home and community care that is reliable, robust and accessible; that is client-centred and highly integrated with the other health and community supports; and that is accountable and transparent, and provides value to both clients and taxpayers. In September 2014, an Expert Group on Home and Community Care (Expert Group) was formed to provide specific, practical recommendations to enable the Ministry to achieve its vision. The Expert Group released a report, *Bringing Care Home*, in March 2015. The report contained 16 recommendations to create a better client- and family-centred home and community care sector, as shown in **Appendix 1**.

A September 2014 mandate letter from the Premier to the Minister of Health and Long-Term Care said the expansion of home and community care was a government priority.

In May 2015, the Ministry issued *Patients First: A Roadmap to Strengthen Home and Community Care*, which was informed by the work of the Expert Group. The document outlines 10 initiatives intended to be implemented from 2015 to 2017 to transform the home- and community-care sector. **Appendix 2** shows these 10 initiatives.

Care Co-ordinator Roles: CCAC care co-ordinators are regulated health professionals—mostly nurses, social workers and occupational therapists—who are responsible for assessing clients and managing their home care. They work directly with clients and their families, either at the CCACs or at hospitals. Care co-ordinators create individual plans of service—called care plans—that set out the type and amount of services to be provided, collaborating with the clients' primary care providers (such as nurse practitioners) and other care partners such as family physicians and other community agencies. As well, care co-ordinators provide support to clients as they move between services and care settings (such as between long-term-care homes and supportive housing), and across geographic boundaries.

To enable care co-ordinators to spend more time with clients, CCACs employ team assistants who provide administrative support services, such as updating client files, setting up client appointments, and discharging clients at the direction of the care co-ordinators. Unlike care co-ordinators, team assistants are not regulated health professionals.

As of March 31, 2015, 5,100 or three-quarters of the CCAC's 6,775 staff worked as care co-ordinators and team assistants who manage home-care cases. Their costs account for about 20% of total CCAC funding (the majority of the remaining costs are for procured services from contracted service providers).

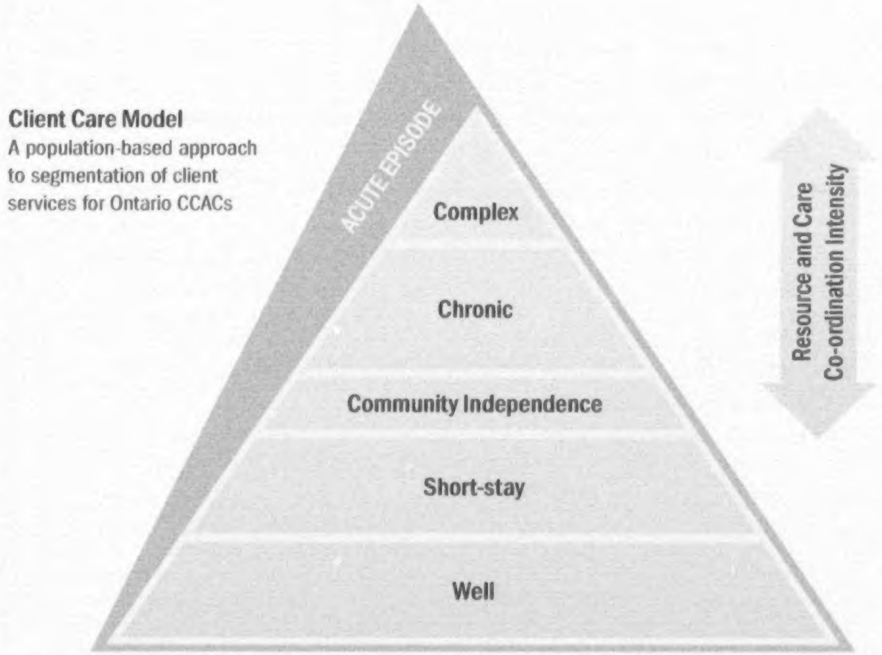
Client Care Model: To more consistently deliver client services to meet the varying levels of need, the 14 CCACs use a model of care (see **Figure 2**) to guide their service levels to clients.

Under the model, clients are assessed by CCAC care co-ordinators based on various factors including the client's health condition, degree of independence, risk of experiencing acute episodes (an acute episode is a period when an injury is at its worst), and socio-economic factors (such as levels of education and income). The CCAC care co-ordinators then categorize the assessed clients into five population groups: well, short-stay, community independence, chronic, and complex. Each client group would receive specific care co-ordination by CCAC staff who should have specialized knowledge and case management skills to deal with the care co-ordination level of intensity needed to address the clients' care needs. **Appendix 3** shows the population and sub-population groups, and their respective recommended case management intensity.

Home-care Assessment Tools: Once a CCAC confirms a client's eligibility based on the criteria set out in regulation, a CCAC care co-ordinator

Figure 2: Client Care Model

Source of data: Community Care Access Centres


Client Care Model
A population-based approach to segmentation of client services for Ontario CCACs
ACUTE EPISODE
Complex
Chronic
Community Independence
Short-stay
Well
Resource and Care Co-ordination Intensity

Explanatory Notes:

a. Larger population at the base ("well"); smaller population at the top ("complex").

b. Clients can move up and down the triangle between different populations as their needs change.

c. An acute episode can occur at any time for any population group, but potential for an acute episode increases for clients with more acute needs.

assesses the client using standardized assessment tools called Resident Assessment Instruments or RAIs. These tools are developed by a collaborative network of researchers in over 30 countries that belong to an organization called interRAI. There are different RAI tools used across home- and community-based health services, such as long-term-care homes and support agencies. For instance, support agencies use RAI-community health assessment (RAI-CHA) to assess clients' ability to live independently in the community, and CCACs and hospitals use RAI-palliative care (RAI-PC) to assess the needs of palliative clients. But for the purpose of home care, CCAC staff uses RAI-contact assessment (RAI-CA) and RAI-home care (RAI-HC) at specific points in time.

To assess a client's service needs, care co-ordinators administer the RAI-CA, usually over the phone from the CCAC office, within 72 hours of referral. With this tool, care co-ordinators determine whether clients need to be formally assessed right away, need urgent home-care services, and/or need specialized rehabilitation services. Because there is usually a wait before clients are assessed with RAI-HC, each CCAC has developed its own scoring method to use within RAI-CA so service levels can be preliminarily determined and provided right away. If clients are assessed as not needing home-care services, CCAC care co-ordinators may refer them to other community support service agencies to receive needed services such as meals on wheels, homemaking services, and transportation services.

Some CCACs have also developed a shorter pre-screening tool to help their staff quickly determine whether an individual would require an assessment using the RAI-CA. Clients who are pre-screened and determined to be "well" according to the Client Care Model are not subject to the RAI-CA assessment.

If the client is assessed in the initial contact assessment as community independent, chronic or complex, the care co-ordinator must administer the RAI-HC in person at the client's home within seven to 14 days from the time the contact assessment is completed. The care co-ordinator develops the care plan using results from the RAI-HC assessment as well as other information and clinical judgment. The care plan details the level and type of home-care services that would meet the client's needs. The CCACs developed a scoring method (not endorsed by interRAI) to be applied with the RAI-HC tool. The scoring method generates scores between 0 and 28, with 0 being the lowest level of need for personal support services, and 28 being the highest level of need. Care co-ordinators also use this tool to reassess long-stay clients who have complex, chronic or community-independent characteristics, to determine their continuing need for service or to adjust service levels as required. The Association is working toward implementing the interRAI-HC tool to replace the current RAI-HC by April 2017 (both interRAI-HC and the currently used RAI-HC were developed by the same research collaborative). According to the Association, the interRAI-HC tool will better assess clients' needs.

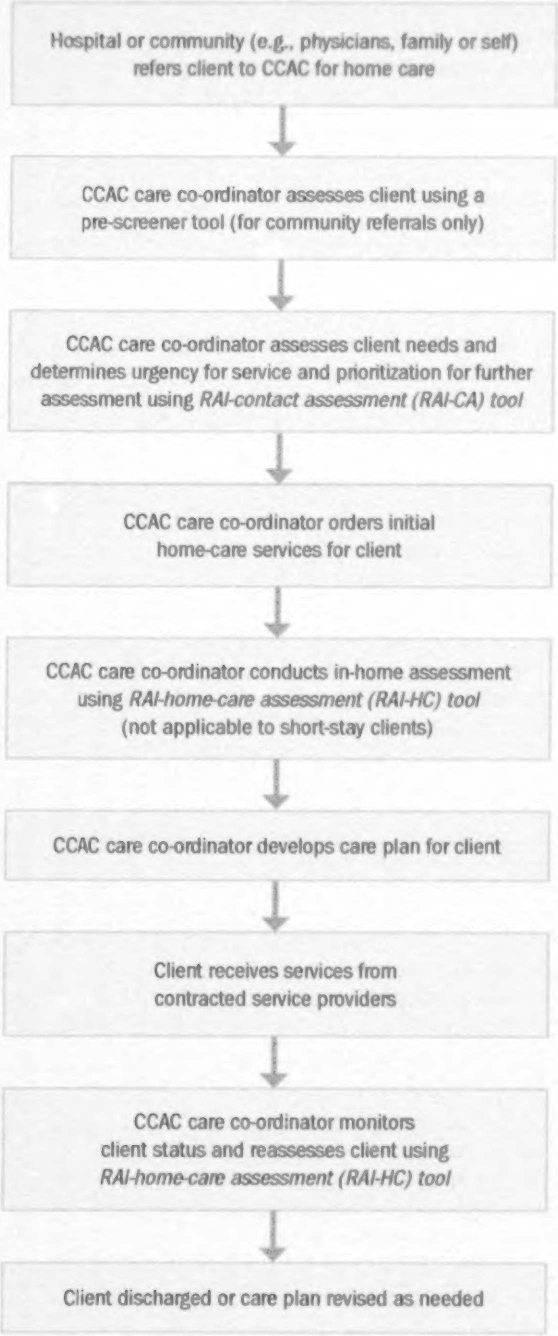
Figure 3 shows when each of these assessment tools is used in a client's journey through the home-care system.

CCAC clients may also receive nursing and/or therapy services through home care. CCAC care co-ordinators do not need to score the clients to determine these service levels because professional staff (such as registered nurses) determine service levels and number of visits using their professional clinical judgment and following predetermined service guidelines called clinical pathways, which set out the goal, process, duration and plan of care depending on the illness.

Personal Support Services: Most of the home-care services are delivered by personal support workers who are employed by private-sector for-profit or not-for-profit service providers. In 2014/15, about three-quarters of contracted service hours were spent on providing personal support services to home-care clients (the remaining hours were delivered by nurses and therapists). According to the

Figure 3: Client's Journey through the Home-care System* from Referral to Discharge

Prepared by the Office of the Auditor General of Ontario


Hospital or community (e.g., physicians, family or self) refers client to CCAC for home care
CCAC care co-ordinator assesses client using a pre-screener tool (for community referrals only)
CCAC care co-ordinator assesses client needs and determines urgency for service and prioritization for further assessment using *RAI-contact assessment (RAI-CA) tool*
CCAC care co-ordinator orders initial home-care services for client
CCAC care co-ordinator conducts in-home assessment using *RAI-home-care assessment (RAI-HC) tool* (not applicable to short-stay clients)
CCAC care co-ordinator develops care plan for client
Client receives services from contracted service providers
CCAC care co-ordinator monitors client status and reassesses client using *RAI-home-care assessment (RAI-HC) tool*
Client discharged or care plan revised as needed

* Figure illustrates process for personal support services.

Home Care and Community Services Act, 1994 (Act), personal support services include services to help clients with personal hygiene activities and routine personal activities of living, as well as the provision of equipment and supplies.

A regulation under the Act specifies the maximum amount of personal support services that is to be provided to a client. The regulation was amended in May 2008, effectively raising the maximum amount of time that a client would receive personal support services as follows: a maximum of 120 hours (formerly 80 hours) in the first 30 days of service, and 90 hours (formerly 60 hours) in any subsequent 30-day period. These limits can be exceeded indefinitely in "extraordinary circumstances" for palliative clients and those waiting for placement into a long-term-care home, or for up to 90 days in any 12-month period for other clients.

Caregiver Support: The *Community Care Access Corporations Act, 2001* provides six purposes of a CCAC, one of which is to provide, either directly or indirectly, goods and services to assist relatives, friends and others in the provision of home care. It is well known in the sector and among researchers that caregivers such as family members and neighbours play an important role in ensuring that clients are properly cared for so that they can remain in their home for as long as possible. The Expert Group's report also identified an urgent need to support caregivers in their continued care of clients and recommended more resources be provided to increase capacity for in-home and out-of-home scheduled emergency respite services.

2.0 Audit Objective and Scope

Our audit objective was to assess whether the Community Care Access Centres (CCACs), in partnership with the Ministry of Health and Long-Term Care (Ministry) and Local Health Integration Networks (LHINs), have processes in place to provide care co-ordination to home-care clients in a seamless and equitable manner, monitor service providers in accordance with contractual and other requirements, and measure and report on the quality and effectiveness of home-care services provided. Our last audit of home care was conducted in 2010. Due to the importance of this program, we determined that it was appropriate to conduct another review at this time. Senior ministry management accepted our audit objective and associated audit criteria.

We undertook fieldwork from March 2015 to June 2015 and visited three CCACs: Central CCAC (head office in north Toronto), North East CCAC (head office in Sudbury), and Champlain CCAC (head office in Ottawa). We selected these three CCACs to represent the 14 CCACs based on geography, population size, and the mix and volume of professional services provided. The Ministry, through the LHINs, paid these three CCACs a total of $644 million in the year ending March 31, 2015, representing 26% of total funding to all 14 CCACs and about 25% of the total clients served in Ontario. At these CCACs, the focus of our work was on senior adults (aged 65 years and older) and non-senior adults (aged 18 to 64 years) rather than children who may also receive home- and community-care services. We reviewed client files and internal program documents, analyzed program data, and interviewed appropriate staff. We also interviewed staff at the related Local Health Integration Networks, the Ministry, and the Ontario Association of Community Care and Access Centres, which represents all 14 CCACs.

We met with the chair of the Expert Group on Home and Community Care (Expert Group) and considered the Expert Group's work in this audit. In addition, we obtained data from Ombudsman Ontario on complaints about CCACs. In addition, we met with the Canadian Institute for Health Information to determine the type of data collected through the assessment tools in Ontario in comparison with other Canadian jurisdictions. We also met with Health Quality Ontario to determine the role it plays in evaluating CCAC performance. Furthermore, we obtained an external perspective of home care from the following organizations: the Ontario Community Support Association, Home Care Ontario, the Canadian Home Care Association, the Canadian Caregiver Coalition, the Ontario Nurses' Association, and the Ontario Health Coalition.

We met with two experts knowledgeable in the design and application of the home-care assessment tools. We also interviewed representatives from nine selected service providers on their experience with implementing the personal support workers wage subsidy program. In addition, we conducted research to identify practices used in other Canadian provinces, the United Kingdom, Australia, and the United States to support caregivers of clients.

This audit on home-care services complements the audit we conducted and reported on in the September 2015 Special Report on CCACs in response to a specific motion passed by the Standing Committee on Public Accounts, an all-party committee in the Ontario Legislature. That report covered areas including CCAC expenses, senior executive compensation, nursing services delivered by both CCACs and service providers, and procurement of private-sector service providers.

3.0 Summary

The Community Care Access Centres (CCACs) play an integral role in ensuring that clients receive care in the most comfortable place possible—their own homes. Between 2008/09 and 2014/2015, the Ministry of Health and Long-Term Care (Ministry) increased spending on home-care services by 42%. The Ministry has recognized the value of home and community care, issuing a number of reports, as noted in **Section 1.0**, highlighting the importance of strengthening this sector.

Despite these positive efforts, some of the issues we raised in our 2010 audit of the home-care program still remain. For example, clients are still put on wait-lists and have to face long wait times to obtain personal support services, and clients with the same assessed needs still receive different levels of services depending on where they live in Ontario. These long-standing issues remain primarily because home-care funding to each CCAC is predominantly based on what each received in prior years rather than on actual client needs and priorities. As a result, to stay within budget, each CCAC exercises its own discretion on the types and levels of services it provides—thereby contributing to significant differences in admission criteria and service levels between CCACs. For example, because there are no provincial standards in many critical areas, such as the level of personal support services warranted for different levels of client needs, some clients may receive more services than others, just because of where they live.

Until these overarching issues are addressed, clients in Ontario will continue to receive inequitable home-care services. Our specific observations in this audit include:

- **Whether a person receives personal support services, and the amount of service provided, if any, depends on where the person lives**—Each CCAC can allocate different levels of services to individuals with similar levels of needs because each CCAC develops its own criteria as a result of funding inequities. Thus, an individual assessed to receive services by one CCAC might not receive services at another. For example, at one of the three CCACs we visited, a client receiving a home-care-assessment score of seven would not receive any personal support service because that CCAC only provides services to clients with a score of eight or higher. However, the same client would receive services in the other two CCACs we visited. The level of care the client receives can also differ among CCACs, even for clients with the same assessment score. For example, a client with a home-care-assessment score of 15 could receive, every week, up to five hours of personal support services in one CCAC we visited, eight hours in the second, and 10 hours in the third. As well, because CCACs cannot incur a deficit, the time of year a client is referred to a CCAC, and that client's level of needs, can influence whether this person receives services or not. For example, at one CCAC we visited, nine times more people were on the wait-list at the end of the fiscal year compared to the beginning of the fiscal year in 2014/15. Within the wait-list, the increase was mainly for clients with high and very high needs. These clients typically require more service hour allocations. This inequity in service levels among CCACs is largely because per client funding for home care varies significantly. Despite reforms in the funding formula that began in April 2012, the province still provides different amounts per client to different CCACs. As well, the availability of community support services varies across the province, so some CCACs may be required to provide more services to their clients when no other agencies can provide the necessary additional support.
- **Care co-ordinators' caseload sizes vary significantly, and some exceed suggested ranges in standard guidelines, so there is little assurance on whether care co-ordination services were consistently provided to all clients**—In two of the CCACs we visited, caseload sizes were not complying with the recommended range in the caseload guidelines developed by the Ontario Association of Community Care Access Centres. For example, one CCAC's care co-ordinators on average carried 30% larger caseloads for chronic clients than recommended. As well, caseload sizes varied within each CCAC—one care co-ordinator's caseload could be as much as double that of another care co-ordinator within the same CCAC. These variations could result in some clients getting better-quality

care co-ordination than others. The third CCAC chose not to follow the recommended ranges, and instead developed its own ranges to manage its resources after it evaluated its experience with the standard caseload guidelines. CCAC staff indicated that the caseload sizes in the Association's guidelines need to be reviewed to more reasonably reflect achievable targets within budgetary constraints.

- **CCACs are not able to provide personal support services to the maximum levels allowed by law**—CCAC care co-ordinators are required to follow local service allocation guidelines and use clinical judgment when determining client service levels. At the time of our audit, clients were for the most part allocated up to a maximum of 60 hours of personal support services per month (any additional hours are subject to CCAC management approval). However, regulatory changes effective May 2008 increased the maximum service level to up to 90 hours per month after the first month of service (clients are allowed up to 120 hours in the first month of service). One of the CCACs we visited monitors how many patients receive over 60 hours of service per month, in order to meet its annual operating budget. At that CCAC, we found that more clients had to wait to receive services if they required the highest number of service hours per month compared to clients with lower service needs. Furthermore, Ontario's regulation is silent on the minimum amount of services that can be provided. As a result, there is no minimum service level requirement for personal support services that CCACs must provide to their clients—for instance, a specified minimum number of baths per week.
- **Clients may not receive appropriate levels of services as CCAC care co-ordinators did not assess or reassess clients on a timely basis**—At the three CCACs we visited, 65% of initial home care assessments and 32% of reassessments for chronic and complex clients were not conducted within the required time frames in the year ending March 31, 2015. Some clients were not assessed or reassessed in almost one year, and some beyond a year. These delays mean that clients might not receive the appropriate type and level of care as expeditiously as possible, which could result in them remaining in home care longer than they need to—or even in them using hospital emergency services or being hospitalized for periods of time that might not have been necessary.
- **Not all care co-ordinators maintained their proficiency in, and some were not regularly tested on, the use of assessment tools**—At the three CCACs we visited, 33% of care co-ordinators did not maintain their required proficiency in completing assessments by performing the minimum number of assessments per month that the Ministry's provincial standards require. Also, not all care co-ordinators were formally tested on the use of the assessment tools at the required frequency. So there is little assurance that all care co-ordinators were proficient in assessing clients using the assessment tools and were using these tools appropriately to assess client needs.
- **Supports to caregivers such as family members of home-care clients are limited and not consistently available across Ontario**—The amount of support, such as respite care, that a caregiver receives depends on where the caregiver lives, because such services are not always available or easily accessible in all areas within Ontario. Even when CCACs can provide personal support services to relieve the caregivers' burden, those services are provided within the client's allowed service hours, and no additional hours of care are provided. Such arrangements may not provide sufficient support to caregivers to prevent burnout. We noted that the Ministry, in its May 2015, 10-point action plan for home and community care, proposed to invest in

more training and education programs for caregivers.

- **CCAC care co-ordinators may experience difficulties in effectively referring clients to obtain community support services because assessment information and wait-lists are not centralized**—CCACs cannot access assessment information from some community support service agencies because many agencies have chosen not to use the shared information system established for this purpose. As well, CCACs have to contact multiple support agencies to identify available services for meals on wheels, respite care, homemaking and transportation because there are no centralized wait-lists for these services.
- **CCACs' oversight of contracted service providers needs improvement**—CCACs do not consistently conduct site visits to ensure service providers are complying with their contract requirements. We found that none of the CCACs we visited had verified that service providers accurately and completely reported incidents of missed visits. As well, CCACs cannot easily identify instances where the service providers did not provide the needed services at the times required by the clients under a recent change in the definition of "missed visits" to "missed care." Even though CCACs survey clients on how satisfied they are with service provider performance, the results were not reliable because of the high margins of error for some of the client responses.
- **Each CCAC's performance is measured against different targets for performing client services**—Only some of the performance information reported by CCACs is measured against targets. Of those performance areas that have targets, CCACs are held to varying standards because targets are established individually with their respective LHINs. For example, for the performance indicator measuring the percentage of CCAC home care clients who made an unplanned emergency department visit within the first 30 days of being discharged from the hospital, the targets across the three CCACs we visited varied from about 4% to 12% in 2014/15.

This report contains 14 recommendations consisting of 31 actions to address our audit findings.

OVERALL MINISTRY RESPONSE

The Ministry of Health and Long-Term Care (Ministry) appreciates the comprehensive audit conducted by the Office of the Auditor General of Ontario on the provision of home care services by Community Care Access Centres (CCACs). We commit to addressing all the recommendations directed to the Ministry and to working with our partners in the home and community care sector to ensure an appropriate response to all of the Auditor General's recommendations.

As the Ministry noted in its response to the Auditor General's September 2015 Special Report titled *Community Care Access Centres—Financial Operations and Service Delivery*, strengthening home and community care is a key government priority. The Ministry's *Patients First: A Roadmap to Strengthen Home and Community Care* (Roadmap), released in May 2015, outlines the Ministry's plan to transform the way we deliver care at home and in the community through 10 key initiatives. As with the Auditor General's September 2015 report, the observations and recommendations provided through this audit will be considered and incorporated by the Ministry as we work toward our goal of higher quality, more consistent and better integrated home and community care.

The Auditor General's recommendations in this report are relevant to several of the Roadmap initiatives. The creation of a Levels of Care Framework will support the consistency of available services, levels of service and client assessments across the province. The framework will represent a system-wide improvement and will address current service and information gaps in home and community care. In addition, the Roadmap also identifies expanding supports for caregivers as a priority. The Ministry is committed to meeting the needs of home and community care clients and their caregivers.

OVERALL RESPONSE FROM CCACs AND THE ASSOCIATION

CCACs are committed to implementing evidence-based best practices and approaches to improve patient care and will incorporate the feedback from this Auditor General's report, as we have previously. We support standardized approaches that enable consistent patient assessment, data collection and benchmarking locally, provincially, nationally and internationally. That is why CCACs have worked diligently over past years to drive evidence-informed models of service delivery and have regularly assessed, measured and reported on our performance.

The important role of care co-ordinators is highlighted in this report. CCACs believe the value of care co-ordinators cannot be stressed enough as they are the central component of a successful home care system. Care co-ordinators are the single point of contact for patients and their caregivers. They support patients and caregivers by developing care plans that are tailored to patients' evolving needs, ensure services are delivered as planned and are often both an advocate for patients and an ally for caregivers in supporting patients throughout their care journey. Because care co-ordinators assess patient needs and ensure patients receive the best available care when and where they need it, physicians and other providers rely on them as the conduit for communication with patients, including when there is a change in health status.

Over the last 10 years, the complexity of home care patients has grown considerably, presenting new challenges for health partners across the system in supporting increasingly complex patients in their homes. In 2014/15, approximately 70% of CCAC long-stay patients were categorized as complex, compared to less than 40% only five years ago. CCACs' overall *patient volume has more than doubled over* the last 10 years, to over 700,000 patients in 2014/15.

Any proposals to modernize home and community care must recognize changing patient numbers and needs—and the growing demands on home care. The legislative framework that has shaped our sector and the funding approaches that support CCACs are outdated and have not kept pace with present day and future needs for home and community care.

CCACs remain committed to continuous improvements in patient care and service, and support the work the province is undertaking in the transformation of home and community care. Based on our proven history of managing change, CCACs will continue to work in partnership with patients and caregivers, the Ministry of Health and Long-Term Care, Local Health Integration Networks, physicians, hospitals, community agencies and service provider organizations to ensure the delivery of quality home and community care.

4.0 Detailed Audit Observations

4.1 Assessment of Client and Family Needs Requires Improvement

CCAC care co-ordinators are the single point of contact for clients and co-ordinate supports to clients depending on their care needs, which may change over time. Their responsibility is to ensure services are delivered as set out in the clients' care plans. Care co-ordinators also work with physicians and other health-care providers in ensuring that the services provided to clients meet clients' needs. In determining client care needs, CCAC care co-ordinators use standard, evidence-based assessment tools in conjunction with clinical judgment, on an ongoing basis.

Assessing and reassessing clients on a timely basis is an important part of managing home-care services, to ensure that clients receive the right service levels at the right time to meet their needs. We had the following concerns with client assessments in the three CCACs we visited: they were not done on a timely basis; care co-ordinators were not consistently tested on their competency in assessing clients; and supports for family caregivers were limited and inconsistently available, even when there was an assessed need for these services.

4.1.1 Clients Not Consistently Assessed or Reassessed on a Timely Basis

The eligibility criteria for home-care services require that a person be insured under the Ontario Health Insurance Plan to receive home-care services. CCACs serve clients referred for home-care services from either a hospital or the community. Between 2012/13 and 2014/15, at the three CCACs we visited, the number of hospital and community referrals remained consistent with an average of 52% of referrals from hospital and 48% from the community. CCAC care co-ordinators are expected to conduct an initial contact assessment using RAI-CA for clients referred from the community (whereas clients discharged from hospital may receive an initial assessment in hospital) and then RAI-HC for all clients.

We found that at the three CCACs we visited, CCAC care co-ordinators were not conducting the initial assessments (either the RAI-CA or the RAI-HC) on a timely basis. Figure 8 shows whether initial assessments and reassessments were done within prescribed timelines. We had the same observation in our 2010 audit of Home Care Services. Our audit observation in this area is also consistent with the Association's, it found in its January 2013 interim review of the Client Care Model that many CCACs were unable to achieve the service standards of assessing clients within the required period. At the three CCACs we visited, for the year ending March 31, 2015, where CCAC care co-ordinators conducted the RAI-CA assessment, 40% were not done within the required 72 hours; and, where CCAC co-ordinators conducted the more comprehensive RAI-HC assessment, 65% were not done within the required timelines (ranging from seven to 14 days) for the various client population categories. On average, the actual time between referral and RAI-CA assessment was six to eight days rather than within the required three days. RAI-HC assessments were conducted 25 to 28 days after the RAI-CA assessments rather than within the required seven to 14 days.

Regular reassessments are also important to ensure clients who are already receiving home-care services continue to receive services that best meet their needs, or to inform CCAC care co-ordinators when care is no longer required. We found that clients who are already receiving home care are not being reassessed following the prescribed timelines to ensure the care they receive is still appropriate. For the year ending March 31, 2015, of the clients who were reassessed, CCAC care co-ordinators at the three CCACs we visited did not reassess those who were complex and chronic within the required timelines in 32% of the cases, but did reassess all who were community independent within one year of their initial home-care assessment, as required.

Some clients were not reassessed even though they should be. As of July 2015, depending on the CCAC, 14% to 39% of the clients who should be reassessed were not reassessed as required. At one CCAC, more than half of their community independent clients had not received a reassessment within the required one year and were still waiting in July 2015.

Figure 4: Required and Actual Timelines for Assessments and Reassessments at Three Selected CCACs, 2014/15

Sources of data: Ontario Association of Community Care Access Centres, Selected Community Care Access Centres

Population Category	Association Guidelines	Actual Time Span				# of Assessments Overdue	Total # of Assessments Completed	% of Assessments Overdue	# of Assessments Overdue by > 180 Days
		Average	Median	90th Percentile	Maximum				
Between Referral and Initial RAI-Contact Assessment									
Complex	Within 3 days	7 days	3 days	20 days	242 days	1,876	**4,210**	44	2
Chronic	Within 3 days	8 days	2 days	24 days	281 days	7,198	**17,390**	41	2
Community Independence	Within 3 days	6 days	2 days	17 days	182 days	2,745	**7,818**	35	1
Total						**11,819**	**29,420**	**40**	
Between Initial RAI-Contact Assessment and Initial Home-care Assessment									
Complex	Within 7 days	25 days	15 days	62 days	349 days	2,394	**3,384**	71	29
Chronic	Within 10 days	28 days	16 days	64 days	432 days	9,298	**13,892**	67	186
Community Independence	Within 14 days	29 days	18 days	60 days	482 days	2,707	**5,010**	54	92
Total						**14,399**	**22,286**	**65**	
Between Initial Home-care Assessment and Reassessment									
Complex	Every 3-6 months	3.6 months	3.1 months	7.5 months	11.6 months	250	**1,347**	19	250
Chronic	Every 6 months	5.1 months	4.9 months	8.1 months	12 months	1,349	**3,646**	37	1,349
Subtotal						**1,599**	**4,993**	**32**	
Community Independence	Annually	5.2 months	5 months	9.3 months	12 months	0	**905**	0	347

The delays in assessments and reassessments—in some cases as long as a year or more—highlight the concern that clients were not always being assessed by care co-ordinators using these standardized tools, which may result in clients receiving services at levels not matching their needs. Given this concern, all three CCACs implemented processes to remind care co-ordinators of overdue assessments and reassessments, and one CCAC reminded its care co-ordinators of overdue assessments and reassessments again when they were overdue by 18 months. But because the number of overdue assessments and reassessments at the three CCACs we visited was significant as of March 31, 2015, we question whether staff at the CCACs effectively reviewed and acted on the overdue cases contained in the information reports.

The following is one example of an experience of a referred client who did not receive assessments on a timely basis. A client who is over 90 years old lives alone in a retirement home. In September 2014, the client was referred to a CCAC for physiotherapy and personal support services to address the client's decreased mobility and difficulties with activities of daily living. A few weeks later, the CCAC phoned to schedule an initial phone contact assessment for the following month, 52 days after the client's referral and well beyond the three-day timeline for initial contact assessments. The phone assessment produced an RAI score of 21, which is "very high," and the care co-ordinator classified this client as complex. The CCAC did not approve the client for physiotherapy services, and approved only 16 hours of personal support services per month, well below the 90 hours per month allowed under legislation. In December 2014, the client fell and sustained a fracture. The client's family requested additional personal support services, but the care co-ordinator explained that these services were being waitlisted at that time and therefore were not available. The family chose to pay for private care for the additional hours needed. The client's cast came off in January 2015, at which point the family requested physiotherapy services. The CCAC care co-ordinator made a home visit in March 2015, four and a half months after the initial contact assessment and well beyond the seven days required for an initial home-care assessment. Based on the home assessment, the CCAC care co-ordinator determined that the client needed more personal support services, but because such services were subject to a long wait-list, the client did not receive the additional services, and was not approved for physiotherapy services.

4.1.2 Care Co-ordinators Did Not Consistently Maintain Proficiency in Assessment Tools

CCACs provide varied training to their new care co-ordinators in the use of the assessment tools. For example, one CCAC provides its new care co-ordinators a minimum of two home visits with a mentor, education sessions, and practice assessments. Another CCAC requires its new care-coordinators to take part in a seven- to 10-day comprehensive orientation program focusing on the use of the assessment tools. This CCAC also offers its new care co-ordinators eLearning and peer support.

In order for the care co-ordinators to remain proficient in their use of the assessment tools, ministry policy requires that each care co-ordinator complete at least eight to 10 assessments per month. We reviewed whether this policy was met at the three CCACs we visited, in four sampled months in 2014/15. We found that 33% of the care co-ordinators did not complete the required minimum number of assessments per month. The CCACs explained that their care co-ordinators did not perform the expected number of assessments because they were casual or part-time staff; some work in hospitals and only perform assessments as needed; and some were on leave or changed positions. However, we noted that the Ministry's policy did not establish a separate minimum requirement of assessments conducted for casual or part-time care co-ordinators.

Ongoing testing could help ensure care co-ordinators continue to be knowledgeable in the use of the assessment tools. There is no provincial standard on how often CCAC care co-ordinators should be tested on the use of these tools. As a result, each of the CCACs developed its own policy prescribing how often care co-ordinators should be tested. Two of the three CCACs we visited required care co-ordinators to be tested every two years for both the in-home assessment tool and the initial contact assessment tool; one CCAC required testing every year for the in-home assessment tool, and every two years for the initial contact assessment tool. In practice, we found that care co-ordinators were not tested at their required training frequency at two of the three CCACs. At these two CCACs, tests were either not delivered at the required time interval, or were not delivered to all care co-ordinators. Specifically, one CCAC conducted tests in 2010 and again in 2013, a three-year period, even though its policy is to test care co-ordinators every two years. About 20% of care co-ordinators did not participate in the 2010 test, and about 5% of care co-ordinators did not participate in the 2013 test. The other CCAC last tested its care co-ordinators in 2011, but 9% of the care co-ordinators either did not participate in or failed that test. At the time of our audit, this CCAC had not required its care co-ordinators to complete testing since 2011, and did not have a planned timeline for future testing.

We noted that long-term-care home staff in Ontario are required to be tested on the assessment tool every year, and Alberta, British Columbia and New Zealand also require their home-care staff to be tested on the assessment tools every year. The Ontario Association of Community Care Access Centres (Association) hired an external organization in 2004 to train and test care co-ordinators on the assessment tools at all 14 CCACs, but the Association does not monitor whether the care co-ordinators have been tested at the required frequency—this is left up to the individual CCACs to monitor.

RECOMMENDATION 1

To ensure that all home-care clients receive the most appropriate and timely care, Community Care Access Centres, in conjunction with the Ontario Association of Community Care Access Centres, should:

- assess and reassess clients within the required time frames;
- inform clients of the expected wait time for assessments and reassessments, especially when the required time frames will not be met;
- require managers to review reports on overdue assessments and reassessments and better ensure care co-ordinators act on addressing overdue files as soon as possible; and
- require that all CCAC care co-ordinators comply with the minimum number of assessments per month and be tested on the use of the assessment tools each year, and monitor compliance to that requirement.

RESPONSE FROM CCACs AND THE ASSOCIATION

The Association and CCACs appreciate that the Auditor General acknowledges that patient care and safety are our highest priorities. We are pleased that the Auditor General also recognizes care co-ordinators as highly skilled and regulated health professionals who continuously assess patients using their clinical judgment and an array of important inputs. These include, but are not limited to, information from patients and their caregivers (received in person or by phone), frequent updates from all members of the care team (including physicians and staff from contracted service providers), and the Resident Assessment Instrument, a standardized electronic information-gathering tool. All of these methods assist care co-ordinators in assessing patient needs, strengths and preferences. As information is shared and needs change, care co-ordinators prioritize patients and adjust plans accordingly to ensure patients get the care they need. CCACs will continue to improve processes for timely assessment and reassessment to determine the best timing for use of assessment tools, and to better articulate guidelines on the use of broad assessment tools in the overall assessment of patient need for care.

4.1.3 Minimal Supports to Caregivers

Both the CCACs and the Ministry recognize the importance of caregivers in the care of home-care clients. One of the CCACs we visited set up a council consisting of clients and caregivers that provides advice to the CCAC's board of directors and identifies solutions to improve client services. As well, all CCACs have set up a dedicated webpage on "thehealthline.ca"—a provincial website about CCAC services—that provides information on services and support to caregivers. In fact, the Ministry had recognized the importance of caregivers as early as 2009 when it funded a report on long-term policy implications about caregivers. The report noted that the government should support and encourage greater caregiver participation. The Ministry, along with the Ministry of Labour, has since put in place a number of initiatives to assist caregivers. These include amending legislation to create a job-protected leave of absence of up to eight weeks for family caregivers to provide care and support to a family member with a serious medical condition. They also include improving home-care clients' access to short-term beds in long-term-care homes so that caregivers can get some relief from providing care.

At the time of our audit, we found that the actual support offered to caregivers was still minimal at the three CCACs we visited.

- Within the CCACs, care co-ordinators can arrange for a portion of a client's allocated personal support services to be directed to help provide caregivers with respite care. However, this block of time comes out of the client's overall personal support hours and is not additional to the client's allocated service hours.
- For services external to the CCACs, CCAC care co-ordinators can refer clients to other agencies to, for example, stay at dedicated short-term beds in long-term-care homes or attend adult day programs, so the caregivers can get some relief. However, these services either have wait-lists, or are not available at all in some communities.

We compared the level of support available to caregivers of home-care clients in Ontario to other jurisdictions and found that other provinces and countries provide more support to caregivers. Currently, Manitoba is the only Canadian province that has passed legislation to formally acknowledge the presence and importance of caregivers in home and community care. Subsequent to the introduction of this legislation in 2011, the Manitoba government in April 2012 appointed a Caregiver Advisory Committee to provide information, advice and recommendations to the Minister of Healthy Living and Seniors. Manitoba further allows qualified primary caregivers to receive a refundable tax credit of up to $1,400 (the maximum allowable amount in 2015). As well, according to the Canadian Caregiver Coalition, Nova Scotia provides financial support to eligible caregivers. Furthermore, according to the Ministry, Australia, the United States and the United Kingdom profile the carer in their assessment of clients' needs; the latter country also has a network of 144 "carers' centres" that offer support, advice, counselling and training to informal caregivers.

We also found that CCACs do not always separately track caregiver aid or services provided; only one of the three CCACs we visited tracked this information. Its data showed that the number of caregiver respite hours decreased 16-fold between 2012/13 and 2014/15, from 18,700 hours to 1,110 hours. This decrease was due to this CCAC, in 2013/14, deciding to modify a program for senior adults so that only adult day programs, but not caregiver respite care, were provided.

The Ministry proposed further action in its May 2015, 10-point plan to strengthen home and community care to invest in more training and education programs for caregivers. The Expert Group's report also recommended more resources to increase the availability of services that support caregivers, specifically by increasing the capacity for in-home and out-of-home scheduled emergency respite services.

RECOMMENDATION 2

To support caregivers so that home-care clients can receive care at home for as long as needed and to ensure the level of support to caregivers is sufficient,

- the Ministry of Health and Long-Term Care, through the LHINs, should assess the types of caregiver supports and initiatives available in other jurisdictions, and consider approaches to use in Ontario; and
- Community Care Access Centres should track the amount and type of caregiver support provided, and assess whether supports provided are sufficient and appropriate.

MINISTRY RESPONSE

The Ministry supports this recommendation and recognizes the importance of putting clients and caregivers first in the planning and delivery of home and community care. As noted in the Auditor General's report, the Ministry has committed to increasing caregiver supports and education as part of the 10-step *Patients First: A Roadmap to Strengthen Home and Community Care*. Under the Roadmap, the Ministry is also working to create a Levels of Care Framework that will take into account both client and caregiver needs in the determination of a care plan.

The Ministry remains committed to engaging and consulting caregivers in the development of all Roadmap initiatives through the Patient and Caregiver Home and Community Care Advisory Table, as well as through project-specific working groups. The Ministry will review caregiver supports and initiatives available in other jurisdictions to inform Ontario's efforts to support caregivers.

RESPONSE FROM CCACs

CCACs agree there is an extreme shortage of services and support available for caregivers. CCACs work closely with caregivers to support patients where they live, and see first-hand the strain endured by caregivers. All 14 CCACs have created a website called Caregiver Exchange to promote the support and services available. While several CCACs have set up programs to support caregivers, no CCAC has received funding for these services and programs. CCACs look forward to, and welcome, expanded caregiver support.

4.2 Co-ordination of In-home Services Could Be Better Managed

Clients receiving services from CCACs are assigned to care co-ordinators. Each care co-ordinator may have a caseload consisting of just one type of client population, or a caseload of mixed-population groups. Care co-ordinators are assigned cases based on four factors: distance to clients' homes; intensity of care co-ordination required; care co-ordination specialty (with specific population groups, such as complex, chronic and community independence); and the level of co-ordination with other health-care providers such as hospitals and community services. Through our audit, we found that care co-ordinators' caseload sizes varied from CCAC to CCAC, and within the same CCAC, and did not meet the provincial guidelines that the Association established; and only one of the CCACs we visited had developed an information report to monitor care co-ordinator caseloads.

4.2.1 Care Co-ordinator Caseloads Varied and Did Not Meet Guideline Sizes in 2014/15

Across the three CCACs we visited, most care co-ordinators have single-population caseloads (such as complex, or chronic or short-stay clients), except in rural or large geographic areas where assigning mixed-population caseloads (i.e., a combination of complex and chronic and others) is considered most cost-effective considering travel time and because there may not be sufficient cases from certain client populations. In 2009/10, the Association developed provincial guidelines on caseload sizes for each client population category under the Client Care Model. At the time of our audit, two of the three CCACs we visited followed this provincial model. The third CCAC initially followed the provincial model but in February 2014 conducted a review of its adoption of this model to identify areas for improvement. Based on this evaluation, this CCAC in February 2015 adopted a modified version of the provincial model, which outlines different client categories (called community and congregate care) than the ones called for in the provincial model. This CCAC also developed its own caseload size guidelines for its client categories in spring 2015. It noted that revisions were necessary to better allow it to meet its clients' needs.

Figure 5 shows the comparison of actual caseload sizes and the recommended caseload sizes for each client population category at the three CCACs we visited. Of the two CCACs that followed the Association's caseload guidelines, we found that as of March 31, 2015, the average caseload sizes did not meet these guidelines, and some care co-ordinators carried significantly more or fewer cases than recommended. Specifically:

- at one CCAC, even though the recommended caseload sizes for complex clients ranged from 40 to 60, its care co-ordinators carried on average 71 cases, but as many as 146 cases;

Figure 5: Comparison of Actual and Recommended Caseload Sizes by Client Population at Three Selected CCACs

Source of data: Ontario Association of Community Care Access Centres, Selected Community Care Access Centres

		Care Co-ordinator Caseload Sizes per Association Guidelines	Actual Caseload Sizes as of March 31, 2015			
			CCAC #1		CCAC #2	
Patient Category	Sub-population		Average	Range	Average	Range
Complex	Senior adults, adults, palliative	40–60	71	46–146	44	14–60
Chronic	Senior adults, adults, palliative	80–100	119	88–170	89	51–115
Community Independence	Stable at risk, supported independence	140–160	160	66–217	112	70–148
Short-stay	Acute, wound, rehab, oncology	200–300	214	116–317	294	135–365

	Care Co-ordinator Caseload Sizes per Local Guidelines	Actual Caseload Sizes as of June 13, 2015	
		CCAC #3	
Patient Category		Average	Range
Congregate care	150–170	169	94–2[illegible]
Community	90–110	91	50–113
Palliative	70	62	42–71
Short-stay	300	351	175–539

- at the same CCAC, even though the recommended caseload sizes for chronic clients ranged from 80 to 100, its care co-ordinators carried on average 119 cases, but as many as 170 cases;
- at another CCAC, even though the recommended caseload sizes for community independent clients ranged from 140 to 160, its care co-ordinators carried on average 112 cases, but as few as 70 cases.

CCACs indicated that, in recent years, the increase in the number of clients, especially those with complex and chronic needs, has outpaced the increase in funding for care co-ordination activities. In addition, needs of existing clients change over time, which may warrant additional care co-ordination services. As a result, care co-ordination caseloads cannot always be within the levels required by the standard guidelines.

Care co-ordinators' caseloads could be better managed if data was available to alert management when client cases need to be allocated more equitably among care co-ordinators. Only one of the three CCACs we visited had developed an information report to allow management to monitor care co-ordinator caseloads.

We also found that caseload sizes varied widely even within each of the three CCACs we visited. For instance, as of March 31, 2015, a care co-ordinator at one CCAC was responsible for 30 cases of complex clients, but another care co-ordinator at the same CCAC was responsible for twice as many, or 60 complex clients.

These variations in caseload sizes could affect the quality of care co-ordination. Each client may experience different amounts of care co-ordination depending on which care co-ordinator was assigned to the client, and where in the province the client resides. The Association conducted a review of care co-ordinator caseloads in January 2013 and found that across seven CCACs, only one in five care co-ordinators had caseloads that were within the recommended ranges; over half exceeded the recommended ranges; and one in four were below the recommended ranges.

In addition to the higher-than-recommended caseload sizes, other factors also affect care co-ordination quality. For example, in one of the CCACs we visited, a care co-ordinator who works full-time and is responsible for community independent clients had a caseload of 168 at the time of our audit, above the suggested 140 to 160. But this care co-ordinator also conducted overdue assessments and covered for two other care co-ordinators.

CCACs we visited noted that the recommended caseload ranges were not achievable because of staff vacancies, sick leaves and budgetary constraints, and suggested that the Association review the recommended caseload sizes and mix. One CCAC noted that having single-population caseloads (such as complex, or chronic, etc.) is challenging because clients often do not want to switch to another care co-ordinator when their health needs change, and prefer to stay with the co-ordinator they are familiar with. As well, as noted, one CCAC we visited adopted a modified case management model during 2015. That CCAC set different caseload targets than the Association's caseload targets and, as a result, was better able to meet its own targets. At the time of our audit, the Association had not changed the recommended caseload sizes for care co-ordinators for the various client populations.

4.2.2 Phone Contact Follow-up on Clients after Discharge Is Not Effective

Following up on clients after they are discharged from home care to determine their continued well-being could help ensure clients do not unnecessarily return to the hospital and/or to home-care services. We found that care co-ordinators at one CCAC we visited did not follow up with 17% of clients, while another CCAC did not follow up with 82% of clients. The third CCAC did not centrally track whether follow-up calls were made to clients discharged from CCAC services in the year ending March 31, 2014. At the two CCACs that did complete and track follow-up calls, the average number of days between discharge and follow-up was 64 for the community independence population, contrary to the Association's provincial guideline of 30 days. For complex and chronic clients, the provincial guidelines require CCACs to complete follow-up calls within six weeks; however, on average, the two CCACs we visited followed up with complex clients in 12 weeks and with chronic clients in 11 weeks. CCACs indicated that there is a population of clients who tend to return to home-care services after discharge from home care due to their health conditions, and following up with them after discharge may not significantly affect their return rate. We found that of the clients discharged at the three CCACs we visited in the year ending March 31, 2014, 26% needed to return to home-care services subsequently for the same health condition they had before they were discharged from home care in that year. On average, clients were readmitted to CCACs 181 days after discharge from CCAC services. But of the clients who were discharged from CCAC services for reasons other than admission to hospital, placement in long-term-care home, or being on vacation for more than a month, 20% were readmitted within one month of discharge.

RECOMMENDATION 3

To ensure care co-ordinators are deployed optimally in accordance with caseload guidelines and to encourage equitable service levels across the province, the Community Care Access Centres, in conjunction with the Ontario Association of Community Care Access Centres, should:

- seek to understand the reasons for caseload variances and determine how these can be addressed;
- reassess and, where necessary, revise current provincial guidelines for care co-ordinator caseload sizes; and
- follow up with discharged clients within the required time frames.

RESPONSE FROM CCACs

Care co-ordinators play an important role in assessing, planning and co-ordinating services to enable patients to reach their care goals. Given that a growing number of patients want to stay at home, and that the average stay on CCAC services was approximately 15 months for long-stay patients in 2014/15, care co-ordinator caseloads continue to grow. Caseload guidelines are one of several factors CCACs consider when balancing the needs of patients and the growing demand for care. The number of patients they serve cannot be the only measure of the work of care co-ordinators. Measurement would also include the range of care they provide based on each individual patient's need. Patients prefer ongoing relationships with their care co-ordinator, further contributing to growth in caseloads. Moving a patient off of a care co-ordinator's caseload just to meet a target is disruptive to the patient and is not a choice CCACs take if it is not essential. CCACs continue to review caseloads to further understand and develop programs and services that help patients live independently in the community.

4.3 Inadequate Information on Community Support Services Available

In addition to admitting clients to receive home-care services, CCAC care co-ordinators are also responsible for referring clients to community support service agencies (support agencies) when the client's needs cannot be met by CCAC home-care services alone, or when the client's needs are lighter and would be better met by support agencies. Some examples of community support services are meals on wheels and respite services, which may include a cost to the client. Since June 2009, care co-ordinators are also responsible for managing the placement of clients for certain categories of services, such as adult day programs (supervised group programming for dependent adults) and supportive housing/assisted living programs (for people who do not require the level of help provided in a long-term-care home, but can no longer manage their own household).

Since 2013, CCACs have used a web-based, geographically specific listing of resources on a website called "thehealthline.ca" to facilitate their referral activities. However, we found the following issues that hamper the CCACs' ability to efficiently refer clients to appropriate support agencies: CCACs did not consistently track referrals or keep centralized wait-lists for all programs for existing home-care clients; the availability of programs varied across regions; the supply of adult day programs and supportive housing programs did not meet demand; and key client assessment information was not added into an information system and was therefore not shared among CCACs and support agencies.

4.3.1 Although Tracking of Referrals to Community Support Service Agencies Is Improving, Limited Data Is Maintained

We found that the three CCACs we visited did not consistently track the referrals they made for their home-care clients or for the general public to community support services. Two CCACs started collecting referral data on adult day programs and supportive housing programs in 2012/13; the third CCAC started doing so in 2013/14. Prior to that, care co-ordinators made notes in individual files when they made a referral to community support services, but they did not compile the statistics on the total number of referrals made. In the year ending March 31, 2015, the three CCACs we visited combined referred about 10,500 people to adult day programs and supportive housing/assisted living programs, up 37% from the year prior.

Data collected on referrals to community support services other than adult day programs and supportive housing/assistive living programs varied among the three CCACs we visited. One CCAC tracked all referrals made; one tracked referrals only on respite care, transportation, and independence training for acquired brain injury clients, but not meals on wheels; and one CCAC did not track any referrals to other community support services.

When CCACs do not maintain complete data on the type of referrals they make to other agencies, they cannot demonstrate that clients were directed to appropriate community support services.

4.3.2 Community Support Services Not Consistently Available in All Regions

Across the three CCACs we visited, where referrals were tracked, the number of referrals had increased in the last two years. However, CCAC staff informed us that certain community support services are not available in some regions. In these cases, the CCAC will try to refer clients to other similar services provided by agencies in their regions, or by agencies in other regions. However, if these alternatives are not available, the clients do not get access to the needed community support services at all. For example, we found that hospice care services provided by support agencies are not available in one geographic area of a CCAC that we visited. To address such shortcomings, the Expert Group recommended in April 2015 that each LHIN submit to the Ministry a capacity plan for its region indicating where there are service shortfalls and how any gaps in home-care and community services will be addressed.

4.3.3 Wait Time to Access Adult Day Programs and Supportive Housing Programs Varied between CCACs

The number of available adult day programs and supportive housing/assisted living programs are not meeting demand. Wait-lists and wait times for these services were significant at the three CCACs we visited. All three CCACs maintain central wait-lists for these two programs. On average, 275 people were waiting for adult day programs and 380 people were waiting for supportive housing/assisted living programs in the three CCACs we visited as of March 31, 2015. Some people waited for as long as two and a half years for adult day programs, and two years for supportive housing/assisted living programs. The average wait time varied among the three CCACs: the average wait time for adult day programs was as low as 3.6 months in one CCAC, but more than double that in another CCAC; the average wait time for supportive housing/assisted living services was as low as 2.8 months in one CCAC, but as high as 7.7 months in another CCAC.

4.3.4 Centralized Wait-lists Not Available for Other Community Support Services

The three CCACs we visited do not have centralized wait-lists for the other community support services such as meals on wheels and transportation services. To refer clients to these services, care co-ordinators have to contact each support agency to find out if spaces are available. Even though support agencies may have their own wait-lists for these services, the three CCACs do not have real time access to this information. Having this access could improve the CCACs' ability to more efficiently refer clients for these services.

RECOMMENDATION 4

To effectively navigate clients to obtain necessary community-based services and to ensure current information on the availability of such services is easily accessible to all health service providers and clients, Community Care Access Centres should:

- track all referrals made to community support service agencies; and
- in conjunction with their funding Local Health Integration Networks, consider developing centralized wait-list information for all community support services.

RESPONSE FROM CCACs

The community support service system is fragmented because there are many entities that provide support in every community. CCACs have developed eReferral, a tool that notes where CCAC patients receive community support services, which is then tracked within the CCAC electronic client record. CCACs provide eReferral to over 500 community support service agencies.

Although CCACs have no regulatory authority to manage wait-lists for community support service agencies, CCACs have the technology capacity and could manage these wait-lists with LHIN and partner agreements and necessary program funding.

4.3.5 Limited Sharing of Assessment Information between CCACs and Community Support Service Agencies

When each CCAC, support agency or other health service provider agency takes in a client, an assessment needs to be conducted. As a result, clients dealing with many agencies often have to provide similar information multiple times. In order to reduce client frustration and duplication of efforts, the Ministry introduced, in June 2009, an online system called Integrated Assessment Record to enable agencies to share client assessment information with each other. Between June 2009 and March 2015, the Ministry spent about $24 million to implement, maintain and operate this system.

However, we found that this system did not contain complete client assessment information for use by CCACs and support agencies. The Ministry required only CCACs and long-term-care homes to upload assessment information to the system, but did not extend that requirement to support agencies, which upload assessment information to the system on a voluntary basis. According to information maintained by the Ministry, as of November 2015, 43% of the support agencies in Ontario that used the RAI assessment tools uploaded assessment information to this system.

In addition, we found that although some data was available in the system, the actual use of the available data was even lower. The LHIN of one of the CCACs we visited surveyed the health service providers in its region in November 2014 and found that only 37% of them used this system to share assessments. For the three CCACs we visited, less than 1% of the CCAC home care assessments were viewed by other agencies, and about 5% of the support agencies' assessments were viewed by other providers (most likely CCACs, but could also include other agencies). One CCAC we visited explained that its staff did not use the assessment information in the system because it did not contain certain information, such as assessors' notes, that could include clinical information to help CCAC staff understand the client's situation.

CCAC staff also informed us that the system did not have a feature, such as an electronic notification, that alerts care co-ordinators when a client is also receiving services from another agency. This feature could help CCAC staff know that a client's information is already collected by another agency and on the system, so they would not have to request it from the client again. As well, CCACs indicated that this system is not an interactive health record, but rather a viewer for a limited type of assessment records, and there can be delays of up to 36 hours for assessments to be viewed.

RECOMMENDATION 5

To increase sharing of assessment information and to avoid duplication of effort, the Ministry of Health and Long-Term Care, in conjunction with the Local Health Integration Networks, should:

- require all health service providers to upload complete assessment information, including assessor's notes, on a common system; and
- establish a feature in the system to alert staff working in CCACs and community support service agencies when a client's assessment record is already in that common system.

MINISTRY RESPONSE

The Ministry agrees with the recommendation to increase the sharing of assessment information and reduce the duplication of effort through a common system. The Ministry will evaluate the feasibility of enhancements, including adding assessor's notes and a feature to alert staff when a client's assessment record is available in the system. The Ministry is also seeking independent advice on the best approach for community health partners.

RESPONSE FROM CCACs

CCACs agree that health-care providers need access to common health records. To that end, the Association helped develop and the CCACs now use the Client Health Record Information System (CHRIS). This sophisticated platform feeds into Ontario's electronic health record through the connecting South West Ontario (cSWO), connecting North Eastern Ontario (cNEO) and connecting Greater Toronto Area (cGTA) programs, now under the umbrella of connecting Ontario (cOntario). We agree that any common system should have a notification function, and the CHRIS system currently delivers this function. The Association and CCACs continue to enhance our current system to provide better access to critical information to improve patient care planning and service delivery.

4.4 Access to Home-care Services Is Inconsistent and Dependent on Funding Levels

Historically, the Ministry has provided different amounts of funding to CCACs. Starting in April 2012, the Ministry began funding reform for a portion of funding provided to CCACs. The intent of the funding reform is to provide funding to CCACs so that similar levels of services are provided to similar types of clients. Using the funding model, a portion of each CCAC's funding (approximately 30%) is redistributed among all CCACs. The redistribution is based on both the expected population growth and the provincial average of services provided to CCAC clients in the province. However, in our audit, we found that this funding reform had not appreciably resolved the inequity in funding, which contributed to inconsistencies in accessing home-care services across the province.

4.4.1 Per Client Funding Varies across CCACs

Despite the funding reform that began in 2012/13, most of the funding CCACs received in the year ending March 31, 2015, was still based on amounts they received in previous years. As well, as the CCACs transitioned to the new funding formula, the Ministry did not want to create significant year-over-year changes in any CCAC's funding; as such, the Ministry capped the portion of base funding redistributed by the formula to be no more than a 3% increase or 1% decrease compared to the previous year's base funding. One of the CCACs we visited noted that this restriction has prevented it from fully benefiting from the funding increases that it would have qualified for.

In the year ending March 31, 2015, even after the funding reform formula was applied to all CCACs, the costs of delivering home-care services at CCACs still ranged from $2,879 to $4,027 per client, averaging $3,532 per client. Cost per client also differs by client population group. For instance, the Local Health Integration Networks, in collaboration with CCACs, completed an analysis on the 2014/15 per client monthly costs for the different client groups across all 14 CCACs in 2015. That analysis showed that the average monthly costs for long-stay complex (adult) clients ranged from $1,227 to $2,392 per month, and the average monthly costs for long-stay chronic (adult) clients ranged from $566 to $984 per month, depending on the CCAC. The varying funding levels allocated to CCACs have resulted in some CCACs having to place some clients on wait lists and increasing the qualification threshold at which services are provided. As a result, clients did not receive equitable levels of services, as described in **Sections 4.4.2** and **4.4.3**.

RECOMMENDATION 6

To ensure CCACs receive funding that enables the provision of equitable service levels across Ontario, the Ministry of Health and Long-Term Care, in conjunction with the Local Health Integration Networks and the Community Care Access Centres, should explore better ways to apply the funding reform formulas to address the funding inequities.

MINISTRY RESPONSE

The Ministry agrees with this recommendation. The Health Based Allocation Model is designed to enable the Ministry to equitably allocate funding for health services. The Ministry will continue to collaborate with CCACs and LHINs to review the funding formulas and explore adjustments to better ensure equitable service levels.

RESPONSE FROM CCACs AND THE ASSOCIATION

CCACs and the Ontario Association of Community Care Access Centres are working with the Ministry and the LHINs to develop improvements in funding formulas that account for varied geography and changing patient complexity and better address current funding inequities. The current funding formula is based on historical funding adopted from a model where patients received the majority of care in an institution instead of at home. The approach to funding should reflect the needs of patient populations and determine the necessary funding required to meet those needs. New formulas would enable strategic investments to implement change in the delivery of services and improve consistency in access to care for patients. Resolving the inequities in home care funding will lead to greater consistency in care across Ontario.

4.4.2 Access to and Extent of Personal Support Services Received May Not Be Equitable

CCACs cannot operate at a deficit. It is at the discretion of each CCAC how it will meet the demand for its personal support services and other home care services (such as nursing and therapy services) and achieve a balanced budget at year end. This results in CCACs having to make decisions on whether to provide fewer services to more clients or to provide more services to fewer clients. Even when CCACs assess clients as being eligible to receive home care, they then prioritize personal support services to clients when their needs exceed a locally defined threshold. As well, the level of care the CCACs provide their clients can also differ, even for clients with the same assessment score. The time of year a client is referred to a CCAC for home care services can also influence whether the person receives timely services or not.

There are no common provincial service prioritization guidelines, and each of the three CCACs we visited had different criteria to prioritize which clients would receive services. For example, a client assessed with a RAI HC score of seven would not receive any personal support service from one CCAC we visited because that CCAC prioritizes allocation of services such that only clients with RAI HC scores of eight or higher would receive services (patients with scores between eight and 10.5 at this CCAC do not receive services immediately; they are placed on a wait list). But the same client would receive services in the other two CCACs. For some clients, the lack of personal support services could aggravate their health condition and cause them to suffer unnecessarily. These clients could return to the hospital to obtain needed medical care or could later require a greater intensity of home care than originally warranted.

Even when a client has a higher RAI HC score and therefore is more likely to receive personal support services at most CCACs, the level of service could vary. For example, a client assessed with a RAI HC score of 15 would be receiving, every week, up to five hours in one CCAC, eight hours in the second, and 10 hours in the third.

To ensure they achieve a balanced budget by year end, CCACs may adjust their service priority criteria during the year. As a result, a person assessed with a certain score near the beginning of a fiscal year may qualify for services, yet a few months later, because of a change in the local CCAC's service priority criteria, another person with the same assessment score would not qualify for any service. For example, at one CCAC, new clients with RAI HC scores of 15.5 or higher received services in July 2014, but that CCAC raised the admission threshold to 20 in September 2014; therefore, new clients assessed with a score of 16 to 20, after September 2014, were put on a wait list for services. At this CCAC, nine times more people were on the wait list at the end of the fiscal year compared to the beginning of the fiscal year in 2014/15. Within the wait list, the increase was mainly for clients with high and very high needs. These clients typically require more service hour allocations.

Figure 6 shows the 2014 and 2015 prioritization criteria used at the three CCACs we visited.

Figure 6: Comparison of Personal Support Service Levels¹ across Three Selected CCACs, 2014 and 2015

Source of data: Selected Community Care Access Centres

	CCAC #1 (Effective from April 2013)		CCAC #2 (Effective from September 2014)		CCAC #3 (Effective from May 2014)	
Priority Level	**RAI-HC Score**	**# of Hours per Week**	**RAI-HC Score**	**# of Hours per Week**	**RAI-HC Score**	**# of Hours per Week**
Low and Moderate	0–10	1–2	1–6	1	0–10.9	0
Moderate²	n/a	n/a	7–10	2	n/a	n/a
High	11–16	6	11–16	8	11–12.9	9
					13–15.9	10
Very High	17–28	14	17–28	14	16–28	15

1. Service levels shown represent the maximum amount of hours for clients who live alone (those who live with a family member usually qualify for fewer hours).
2. Two of the three CCACs we visited do not have this priority level.

When CCACs change their service priority criteria to control costs, this can also affect existing clients. CCACs may, after reassessing client needs, discharge clients whose assessed needs no longer meet the revised service priority criteria, even though these clients were previously receiving home care services. For instance, in September 2014, one CCAC, with the approval of its LHIN, determined that clients whose assessment scores were less than 11 would be reassessed and discharged from CCAC care if appropriate, in anticipation of eventually transferring low needs clients to support agencies (see **Section 4.4.5**). This CCAC expected that discharging low needs clients would help it potentially save $6 million a year. This CCAC reassessed some 1,300 out of a total of about 1,800 low needs clients who were already receiving home care, and discharged 575 clients. It then suspended the discharge process to review the status of the discharged clients. In December 2014, the CCAC conducted a survey with the discharged clients it could reach, and found that 30% of them reported that they were not doing well, and 60% of them reported that they had to rely on care provided by their family and friends, or self care.

The following is an example of how one CCAC treated clients with similar assessed needs differently. At one CCAC, an 80 year old client was assessed as a chronic client with a RAI score of 13 in June 2014. The client had decreased mobility, decreased functionality with activities of daily living, and a physical injury. This client was allocated two hours of personal support services per week. In this same CCAC, a 95 year old client was also assessed as a chronic client, but with a slightly higher RAI score of 14 in August 2014. The client had cognitive impairment. However, this client did not receive the needed support service right away in August 2014 after being assessed because the CCAC put the client on a wait list to receive services. This client did not receive any services from the CCAC until December 2014 when the CCAC approved two hours of personal support services per week.

4.4.3 Wait lists Exist for Personal Support Services and Therapy Services, and Different Prioritization Criteria Applied

CCACs told us that the main reason they place clients on wait lists is because they do not have the financial capacity to provide the needed services immediately. All three CCACs we visited had wait lists for personal support services and therapy services as of March 31, 2015. For instance, one CCAC we visited had over 2,000 people with various needs (complex and non-complex) waiting for personal support services, with wait time ranging from 12 to 198 days. That same CCAC also had 500 people waiting for occupational therapy, with wait time ranging from 20 to 138 days depending on the location within the CCAC. On the other hand, none of the three CCACs we visited had wait-lists for nursing services.

The wait-lists do not reflect the total demand for services, such as those who may be eligible for home-care services as set out in the criteria under the applicable regulation but do not meet the local CCAC service prioritization guidelines. Each of the three CCACs we visited had developed its own wait-list prioritization criteria for personal support services, which varied. For instance, at one CCAC, clients assessed after September 2014 as low to moderate needs with RAI scores of 10.5 and under would not even be added to its wait-list for services. Meanwhile a client with the same score at the other two CCACs would have been placed on their respective wait-lists for services.

In 2013/14, the Ministry made a commitment to publicly reporting and working toward a five-day wait-time target for nursing and personal support services, and required CCACs to meet this target. According to data published by Health Quality Ontario (a government agency created in 2005 that reports to the public the state of the health system in Ontario), from October to December 2014:

- On average, 93% of clients in Ontario received their first nursing visit within five days of being approved for services, but results varied across the 14 CCACs, from about 90% to 97%. The provincial result represents a slight decline from the 2013/14 annual performance of about 94%.
- On average, 85% of clients assessed as complex in Ontario received their first personal support service within five days of being approved for services, but results varied across the 14 CCACs, from about 69% to 95%. The provincial result represents a slight improvement from the 2013/14 annual performance of about 84%.

In its three-year, 10-point plan to strengthen home and community care, the government in May 2015 committed to developing, by 2017, "a capacity plan that includes targets for local communities as well as standards for access to home and community care and for the quality of client experience across the province."

4.4.4 Allocation of Services Dependent on Funding Levels

CCAC care co-ordinators are required to follow local service allocation guidelines and use clinical judgment when determining client service levels. Even though CCACs are allowed by regulation effective in May 2008 to provide a client with up to 90 hours of personal support services per month, the CCACs we visited were not, for the most part, providing that level of service. A number of factors influence this: CCACs noted that determination of a service level is a clinical decision made by care co-ordinators that is not determined by the regulated maximum allocation of service. In addition, CCACs must work within their budgetary allocations, which have resulted in each CCAC having to make decisions on whether to provide more services to fewer clients, or fewer services to more clients. To support their decisions, CCACs have each developed local service prioritization guidelines that define maximum service levels to be allocated.

For example, one CCAC was allowing a maximum of 15 hours of personal support services per week (60 hours per month), and the other two CCACs were allowing a maximum of 14 hours of services per week (56 hours per month) to their highest-need clients. These levels reflect the former maximum hours of services allowed (60 hours for services provided after the first 30 days in service) prior to the regulatory change that took effect in May 2008. One of the CCACs we visited monitors how many patients receive over 60 hours of service per month, in order to meet its annual operating budget. We found that clients receiving maximum levels of service tend to be those waiting to be admitted to long-term-care homes and those in palliative care. For other types of clients, CCAC management told us that they controlled the maximum hours of services in order to contain costs. CCAC care co-ordinators can allocate more hours of services than their locally determined maximum amounts, but only upon management approval.

As well, we found that over the years, CCACs have reduced the maximum hours clients would receive. For instance, between 2010 and 2014, the most hours per week that one CCAC actually provided to its most complex clients declined from 14 to seven. We noted similar reductions in the other two CCACs.

Our review of the other provinces' and territories' maximum number of personal support hours to clients showed variations in the levels of services provided. Some jurisdictions set a maximum number of hours to be provided per month while some did not. For those jurisdictions that did set a limit, the maximum hours ranged from 100 hours to 160 hours per month. Three jurisdictions in our comparison did not establish a maximum number of hours. Ontario's regulated maximum number of hours is at the low end of the range when compared to the other Canadian jurisdictions. We acknowledge that each jurisdiction may include different services under its own definition of personal support services, so it would be prudent for Ontario to compare its maximum allocated hours of personal support services to these jurisdictions' to determine whether Ontario's hours are appropriate.

Ontario's legislation specifies the maximum amount of services that CCACs can provide; however, it is silent on the minimum amount of services that can be provided. As a result, there is no minimum service level requirement for personal support services that CCACs must provide to their clients—for instance, a specified minimum number of baths per week.

RECOMMENDATION 7

To ensure Ontarians receive equitable and appropriate levels of home-care services, the Ministry of Health and Long-Term Care, in conjunction with the Local Health Integration Networks and the Community Care Access Centres (CCACs), should:

- develop standard guidelines for prioritizing clients for services, and monitor for compliance to those guidelines;
- evaluate ways to provide more service hours closer to the regulated maximum limits for those assessed as requiring such services; and
- consider establishing a minimum level of services that clients can expect to receive from CCACs.

MINISTRY RESPONSE

The Ministry supports this recommendation and is committed to ensuring that Ontarians receive equitable and appropriate levels of home and community care services. The Ministry will work with CCACs and Local Health Integration Networks to ensure that existing home and community care assessment tools are used effectively. In addition, the first phase of the Ministry's plan to transform home and community care is focused on improving consistency of care and providing Ontarians with a clear understanding of what they can expect from the home and community care sector. As part of the Levels of Care Framework, the Ministry will develop service allocation guidelines and standardized care protocols to ensure that there is consistency in how clients are cared for across the province.

RESPONSE FROM CCACs AND THE ASSOCIATION

The Association and CCACs are currently working with the Ministry of Health and Long-Term

Care in its development of a Levels of Care Framework for home care in Ontario. We are fully committed to the Ministry's goal of helping develop a sustainable, "value-for-money" framework that ensures services and assessments are consistent and would encourage the province to consider the consistent application of funding to support assessed patient needs.

4.4.5 CCACs Still Providing Personal Support Services to Low-needs Clients

Regulatory changes that came into effect in July 2014 allow support agencies, in addition to CCACs, to provide personal support services to clients with lower levels of needs, so CCACs can focus on clients with higher needs. Once a client is referred to a support agency, the agency then becomes responsible for that client, including care co-ordination and provision of personal support services. At the time of our audit, the Ministry and the LHINs were still finalizing the operational changes necessary to divert clients from CCACs to the support agencies. Changes that need to be considered include, for example, clarifying the roles of the CCACs and support agencies regarding care co-ordination for clients with lower levels of need to avoid client confusion.

RECOMMENDATION 8

To enable Community Care Access Centres (CCACs) to focus their efforts on clients with higher levels of need, the Ministry of Health and Long-Term Care, in collaboration with the Local Health Integration Networks and the CCACs, should expedite the process of transferring and diverting low-needs clients needing personal support services from CCACs to community support service agencies.

MINISTRY RESPONSE

The Ministry supports this recommendation and is working with the LHINs to ensure safe and appropriate transitions to approved community agencies. The LHINs have begun evaluating the readiness of their funded community agencies to determine their capacity to support this new client population, including seeking the necessary ministry approvals to provide personal support services.

As of fall 2015, the Ministry is providing the Local Health Integration Network Collaborative (LHINC) with funding to support and expedite implementation efforts. Implementation through LHINC will ensure provincial consistency in the approach used across all 14 LHINs, while still allowing for local flexibility. A phased implementation approach is being used, beginning with four early adopter LHINs. These LHINs will test processes, standards and tools to inform a broader provincial rollout. To support the legislative change and clarify the roles of the CCACs and support agencies regarding care co-ordination, the Ministry publicly released two policy guidelines (*Policy Guideline Relating to the Delivery of Personal Support Services by CCACs and CSS Agencies* and *Policy Guideline for CCAC and CSS Agency Collaborative Home and Community-Based Care Co-ordination*). The Ministry will work with the LHINs and with LHINC to ensure that these guidelines are clearly understood and utilized.

RESPONSE FROM CCACs

LHINs are leading the implementation of regulation changes through pilot sites. CCACs look forward to working with the Ministry and LHINs to evaluate these pilots to ensure that services for patients are accessible and not further fragmented.

4.5 Oversight of Contracted Service Providers Needs Improvement

Since October 2012, the CCACs have used a standard service contract that reflects the Ministry's Contract Management Guidelines for CCACs, which includes a set of performance standards for all their contracted service providers that provide nursing, therapy and personal support services (explained in **Section 1.0** under **Service Delivery Model**). The performance standards include, for example, service providers accepting a certain proportion of client referrals from CCACs within specified times, and CCACs receiving client discharge reports for nursing and therapy services from service providers by required deadlines. The CCACs also contract with an external survey firm to assess overall client satisfaction with the service providers' performance, as well as to assess the impact on the client's care when service providers were late for scheduled visits, or sent different personnel for each visit. We discussed details of contract changes prior to October 2012 in the *Special Report on CCACs—Financial Operations and Service Delivery* issued in September 2015.

As a part of monitoring service providers, the CCACs conduct quarterly or monthly meetings with all their service providers to discuss areas including achievement of performance targets, complaints received, and the status of new and ongoing initiatives. CCACs may issue quality improvement notices to service providers when CCACs identify areas of improvement required by service providers to improve client care. When performance issues are not resolved, CCACs may decrease the service volume allocated to a poorly performing service provider, or may terminate the service provider contract. Service providers are also required to submit annual reports and audited financial statements to the CCACs for review. The annual reports contain information such as a summary of the service provider's performance in the year, a summary of results from staff satisfaction surveys, and the status of ongoing quality-improvement initiatives, if any.

However, the CCACs do not assess the service providers for meeting client outcomes; they do not always apply corrective action when service providers underperform; their client satisfaction rates are not always reliable; and they do not consistently conduct site visits to service providers. We also had further concerns about the Ministry's planning and implementation, and the Ministry's, the LHINs' and the CCACs' oversight of the personal support worker wage subsidy program.

4.5.1 Service Providers Not Assessed for Meeting Client Outcomes

From November 2012 to September 2014, the Ontario Association of Community Care Access Centres (Association) developed and collected data for three outcome indicators for a project to assess the effectiveness of treatment for certain wound care areas and for hip and knee replacement care. These indicators measured areas such as hospital readmission rate and the final outcomes achieved. However, in September 2014, the Association paused this project, and CCACs stopped measuring these outcome indicators. We discussed details of this project in the Special Report on CCACs issued in September 2015.

While the indicators set out in the October 2014 standard service provider contracts (the most recent iteration of the contracts at the time of the audit) include measures of client experience (for example, whether clients were satisfied with the care that service providers delivered—see **Section 4.5.3** for discussion on survey results reliability), they do not measure outcomes, such as how often clients return to hospitals after receiving home care. As a result, CCACs cannot determine whether the level and quality of services provided to home-care clients have reduced the risk that they need to return to a hospital setting.

4.5.2 Corrective Actions Inconsistently Applied When Service Providers Underperformed

One CCAC we visited did not always apply corrective measures to service providers that did not meet expected levels of performance. For instance, half of our sample of service providers that supply shift nursing services to this CCAC did not meet the required 90% acceptance referral rate as stated in the contract in 2014/15. Instead, they accepted between 35% and 74% of the referrals made to them, for reasons such as insufficient staffing levels. Similarly, over 80% of its service providers that deliver nursing services on its behalf did not meet their overall satisfaction rate target of 90% in 2013/14. This CCAC had in other cases applied corrective actions such as reducing the referrals made to the service provider, or issuing a quality improvement notice, but after it assessed the appropriateness of applying corrective actions, did not apply any contract remedy in these cases.

CCACs also monitor service providers for missed visits. Before October 2014, the definition of a missed visit was inconsistent across CCACs. For instance, if a service provider arrived late, some CCACs required it to be reported, while other CCACs did not. The target for missed visits also varied across CCACs. For example, the target for missed nursing visits ranged from 0.2% to 0.55% in the three CCACs we visited. Service providers generally met these targets. However, as of October 2014, the Association standardized the definition of a missed visit so that the CCACs can collect and assess consistent data. This indicator is now referred to as "missed care." All CCACs are required to consistently interpret missed care as whether the care provided was in accordance with the client's care plan. When a service provider notifies the client that a visit will be missed and reschedules a visit with the client, the incident will not be captured as missed care under the new definition, even though it was counted as a missed visit by some CCACs under the former definition. Also, this new definition will make it more difficult to identify instances where the service provider did not provide the needed services at the times required by the clients, such as late arrivals, if the care plan does not specifically refer to a time and day of visit (but rather something less specific such as two visits a week). At the time of our audit, a target had not been set for the new missed care indicator as the CCACs needed time to collect performance results under this new definition to be able to establish a baseline for measurement, but the CCACs plan to set such a target by April 2016.

RECOMMENDATION 9

To help ensure that service providers provide the best-quality home-care services to clients, Community Care Access Centres should:

- develop performance indicators and targets and collect relevant data that measure client outcomes;
- reassess the use of "missed care" versus tracking all possible scenarios of missed, rescheduled and late visits; and
- consistently apply appropriate corrective actions to service providers that perform below expectation.

RESPONSE FROM CCACs

CCACs follow a rigorous provincial framework for service provider contract management, which is publicly available. CCACs regularly monitor performance and issue quality improvement notices to service providers to improve patient care. Where performance issues are not resolved, CCACs take corrective action by decreasing the amount of service volume allocated to a poorly performing provider or terminating a contract. In January 2015, CCACs clarified the definition of missed care and began collecting data on the refined definition. CCACs are currently using this data to establish performance targets for all occurrences of missed care.

4.5.3 Overall Client Satisfaction Rate Not Reliable

The client and caregiver satisfaction survey is one of the few methods of obtaining feedback from CCAC clients. The responses help CCACs monitor service providers and improve new initiatives and programs. This survey includes a standard list of questions about the client's experience, such as "How easy or difficult, on average, has it been to contact your case manager when you needed to?" Based on telephone survey results conducted by an external survey company on behalf of the 14 CCACs, between April 2012 and September 2015, the overall client satisfaction rate was over 90%. However, we found that these standard survey results were not reliable based on the high margins of error for some of the client responses.

Between April 2012 and September 2015, about 30% of the three CCACs' clients who were contacted responded to the telephone survey (referred to as the response rate). This rate is slightly above the average 27% response rate for surveys administered over the phone reported by the company that administers this survey.

We also found that clients' responses to some of the questions in the standard survey contained margins of error that were beyond acceptable levels according to their own methodology. The Association and the CCACs jointly determined that a margin of error of 10% was required for survey results to be considered reliable. Any responses with a higher margin of error would not be reliable or accurate for use in monitoring service providers. We reviewed the results for some of the survey responses and noted instances where the margins of error were much higher than 10% because of a low response rate. For instance, 79% of clients in one CCAC indicated that they were satisfied with a service provider providing continuous care. Compared to a target satisfaction rate of 90%, the CCAC still considered this service provider as having met the target because the margin of error for this question and for this service provider was 18% given the low response rate (much higher than the required 10% margin of error), and the CCAC adjusted the target down to 72% (calculated as 90% less 18% margin of error).

RECOMMENDATION 10

To ensure that the client satisfaction survey results can be used to effectively monitor the performance of the service providers, the Ontario Association of Community Care Access Centres, in conjunction with the Community Care Access Centres, should review and revise, where necessary, the client satisfaction survey methodology to increase the accuracy and reliability of survey responses.

RESPONSE FROM CCACs

CCACs use a nationally recognized tool that is widely used by health-care providers, including hospitals, across Canada. CCACs have implemented strategies to ensure that sample sizes produce statistically significant results in all but the smallest-volume contract providers. These small contracts represent only 4% of overall CCAC service volumes. CCACs will continue to regularly update this survey tool to ensure they are seeking as much feedback from patients as possible. This patient satisfaction survey is only one tool employed by CCACs to assess patient satisfaction across the province; more importantly, all CCACs engage with patients directly to receive their valued feedback so we can continue to improve quality and the patient experience.

4.5.4 CCACs Conducted Limited Inspection Audits on Service Providers

In our 2010 audit of home-care services, we found that only one CCAC conducted routine inspection visits to its service providers to monitor the quality of care they delivered. In this current audit, the lack of site visits is still a concern; again, only one of the three CCACs we audited had conducted routine site visits to inspect its service providers in the three years up to the year ending March 31, 2015. This CCAC reviewed areas such as scheduling standards, use of risk reporting tools, and implementation of certain clinical standards.

On the other hand, the other two CCACs we visited did not consistently conduct site visits. One did not conduct any routine site visits at all, citing lack of resources as a reason. The other CCAC conducted limited inspections of its service providers' internal records, but mainly relied on service providers to conduct self-inspections, specifically to find and report on whether they correctly excluded missed visits from their billings to the CCAC (service providers would have previously reported incidents of missed visits to the CCAC). This CCAC found that, based on self-inspections by service providers, one of its four service providers had not properly excluded missed visits in its billings, which resulted in a quality improvement notice for that service provider. However, this self-inspection would not help the CCAC detect whether the service provider had under-reported the number of missed visits to the CCAC in the first place. Therefore, we are concerned that the lack of site visits by the CCACs, and the reliance on self-reporting, does not sufficiently mitigate the risk of underperformance or billing inaccuracies. This risk could be better mitigated if the CCACs conducted routine inspections of its service providers.

RECOMMENDATION 11

To ensure that information submitted by service providers is complete, accurate and reflects their performance, the Community Care Access Centres should conduct routine site visits to monitor quality of care and verify the accuracy and completeness of information reported to CCACs.

RESPONSE FROM CCACs

CCACs are implementing direct reporting by service providers into the CCAC client health record to monitor consistency in patient visits. As this information is currently self-reported on a voluntary basis, CCACs see value in mandatory provincial requirements for automated reporting directly to the CCACs so that CCACs can better monitor service provider performance. Further, a consistent provincial data-collection system will enable CCAC oversight of service provider performance and eliminate the current reliance on self-reported performance data.

4.5.5 Reported Complaints about Services up since 2010

Reviewing and monitoring complaints can help identify concerns with a service provider's performance and provide insight into the quality of home-care services provided. The majority of complaints on home care at the three CCACs we visited related to the amount of services received, the quality of care provided by service providers' staff, and admission for services.

In our audit, for the year ending March 31, 2015, we found that the prevalence of complaints at the three CCACs we visited ranged from six to 10 per 1,000 clients. But the CCAC that reported six complaints per 1,000 clients did not fully include all situations that could result in danger, loss or injury as did the other two CCACs; therefore, its actual prevalence of complaints would likely have been much higher. In the 2010 audit, the rate was significantly lower, at three to eight per 1,000 clients, but we visited different CCACs at that time (one was common in both years).

All the complaints we reviewed were generally resolved within the legislated time frame of 60 days, and the actions that the CCACs took to address them were generally appropriate. All CCACs applied a risk rating to each complaint, as required in their policies, but only one CCAC used the rating scale to establish a time frame to address the more severe complaints within a quicker time frame than the legislated 60 days. This CCAC determined that assigning timelines to different risk levels is an effective method of prioritizing complaints; the other CCACs would benefit from adopting such a policy.

As well, even though the CCACs require service providers to include in an annual report a summary of findings obtained through client complaints received during the year, we found that some service providers reported the nature of complaints received while others only reported the number of complaints. Also, neither the Ministry nor the LHINs require CCACs to report the nature of local complaints. One of the three CCACs we visited reported the nature of complaints to its LHIN as part of a larger report on client safety, but the other two did not. As a result, CCACs cannot easily identify systemic issues.

RECOMMENDATION 12

To ensure that complaints brought to the attention of either the Community Care Access Centres or the service providers are appropriately addressed on a timely basis, the Community Care Access Centres should:

- prioritize the complaints they receive by level of risk and respond to the most urgent ones first; and
- require service providers to identify common areas of concerns as reported by their complainants, and analyze this information for further action.

RESPONSE FROM CCACs

CCACs have a well-established, well-articulated and transparent process for responding to patient complaints that is prescribed by regulation. CCACs have implemented systems to track patient complaints and prioritize risk issues to enable effective responses and minimize likelihood of recurrence. Service providers regularly submit a quality-improvement report to CCACs, which includes the number and nature of complaints received, a summary of common themes and the corrective action that was undertaken to minimize recurrence. We continue to improve data definitions in order to enable CCACs to further expand our capacity to analyze information at the provincial level and further drive province-wide improvements in patient care.

4.5.6 Better Oversight and Planning Was Needed for the Personal Support Workers Wage Subsidy Program

In 2014/15, the Ministry provided about $52 million to CCACs so they could increase base wages for personal support workers (PSWs) to aid in recruiting and retaining PSWs to help meet Ontario's growing demand for home- and community-based services. With this funding, CCACs were to amend their contracts with service providers that supply personal support services, requiring them to increase the hourly wages of the PSWs they hire. The goal is to increase the minimum hourly wage of PSWs by $1.50 each year in 2014/15 and 2015/16, and $1.00 in 2016/17 so that the base wage will rise to $16.50 by April 1, 2016. At the time of our audit, the Ministry had determined the preliminary PSW allocation of funding to CCACs for the 2015/16 year to be $53 million.

In June 2015, the Ministry announced changes to the wage subsidy program that included the implementation of a cap on PSW rates of $19 per hour. Therefore, PSWs earning over $19 per hour will no longer be eligible for the Ministry's PSW wage increases. Thus, PSWs who were paid close to $19 an hour previously, and were expecting a $4 per hour increase over the three years, may receive only a portion of the overall pay increase up to $19 an hour.

We identified several concerns with the Ministry's implementation and the Ministry's, the LHINs' and the CCACs' oversight of the PSW wage subsidy program, as outlined below:

- Service providers we contacted told us that although the funding that the Ministry provided initially included an implicit 16%

for benefits, in addition to base salary, actual benefits paid by service providers are higher, ranging from 20% to 25%. Service providers therefore had to cover the gap in funding out of their own pockets. The Ministry has since provided additional funding to cover 22.7% of benefit costs for subsequent years 2015/16 and 2016/17, and retroactively for the 2014/15 year.

- Service providers told us that the increased PSW wage is encroaching on the lower end of the registered practical nurse wage band. If the difference in wages is not maintained, the service providers are concerned that they will be disadvantaged in bargaining when the registered practical nurse collective agreements are up for negotiation. Service providers are also concerned that the PSWs they employ would receive different pay just because some serve CCAC- and other LHIN-funded clients, and others serve private-pay clients. The ministry funding is not intended for the PSWs who serve private-pay clients.
- Service providers are required in their contract with the CCACs to provide all records relating to the PSW wage subsidy funding, upon request, to the CCAC, the LHIN and the Ministry. The three CCACs we visited did not conduct site visits to service providers' premises or request service providers to provide financial records to ensure they used the funding to increase their PSW staff wages. CCACs indicated that they were asked by the Ministry to support the implementation of the PSW wage stabilization initiative by acting as a flow-through for the funds to those employers with whom CCACs had an existing contract. We noted that the Ministry only requires service providers to annually self-declare that they have complied with the wage increases.

RECOMMENDATION 13

To ensure that the funds provided to recruit and retain personal support workers are spent for the purposes intended, the Community Care Access Centres should conduct inspections of service provider records, on a random basis, and share the results with the Ministry of Health and Long-Term Care.

MINISTRY RESPONSE

The Ministry supports this recommendation and will work with the Local Health Integration Networks, CCACs and the Ontario Association of Community Care Access Centres to establish a common provincial audit process.

RESPONSE FROM CCACs

CCACs were asked by the province to support the implementation of the PSW wage stabilization initiative by acting as a flow-through for the funds to those employers with whom CCACs had an existing contract. It is understood that the Ministry will establish a provincial process to conduct audits of the organizations that received the funds to ensure that the funds were used in accordance with the terms and conditions prescribed by the Ministry in each year of the program. The Ministry, in partnership with the LHINs, is accountable for any follow-up related to how employers allocated the funds.

4.6 CCACs Measured against Different Targets for Common Areas

CCACs report their performance in various areas to both the LHINs and Health Quality Ontario. **Appendix 4** shows the list of performance measures reported and the entity to which this information is reported. Only results collected by Health Quality Ontario are publicly reported on its website.

We found that the three CCACs report their performance in about 40 different areas to either the LHIN or indirectly to Health Quality Ontario (one CCAC is subject to four additional performance measures at its LHIN's request), up from 13 that we noted in our 2010 audit on home care. We noted that while the majority of the indicators measure output (for instance, number of clients served and cost per service) and client experience (such as wait times from hospital discharge to service initiation), only seven measure outcome (for instance, client readmission to hospital and unplanned emergency visits), as shown in **Appendix 4**.

Fifteen of the performance indicators that are reported to the LHINs, and six of the performance indicators that are reported indirectly to Health Quality Ontario, are measured against targets. Similar to our audit observation in 2010, we continue to note that CCACs are held to different standards because performance targets are established individually between each CCAC and its respective LHIN. For example, for the performance indicator measuring how long 90% of the clients had to wait from the time they were discharged from the hospital to when they received CCAC service, the target across the three CCACs we visited varied from five days to eight days in 2013/14. Similarly, for the performance indicator measuring the percentage of CCAC home-care clients who made an unplanned emergency department visit within the first 30 days of being discharged from the hospital, the target across the three CCACs we visited varied from about 4% to 12% in 2014/15.

The remaining performance indicators reported to the LHINs and indirectly to Health Quality Ontario do not have targets because the information is only collected to allow decision-makers to have an overview of the provincial and local health system. However, it would be prudent to establish benchmarks for these areas.

We found that where targets were set and the indicators relate to home care, the three CCACs we visited did not consistently meet all the performance areas, as shown in **Figure 7**:

- About 60% of the performance targets were met in those areas that were reported to LHINs in the year ending March 31, 2014, the latest information available at the time of our audit. In two of the CCACs visited, patients referred from the community setting (i.e., not referred from hospitals) waited twice as long to receive their first service as the targeted wait time (patients in one CCAC waited on average 94 days against the target of 48 days, and patients in the other CCAC waited on average 47 days against the target of 28 days).
- Only one-third of the performance targets were met in those areas that were reported indirectly to Health Quality Ontario in the year ending March 31, 2015. For example, none of the three CCACs we visited met their targets for the percentage of home-care patients that were readmitted to hospitals within 30 days of hospital discharge—one CCAC had a target of 14% for the hospital readmission rate, but over 20% of its patients were readmitted within 30 days of discharge. This CCAC indicated that the higher-than-expected readmission rate may be due in part to limited availability of walk-in clinics and after-hours clinics in the region, and some patients may not have primary physicians, resulting in a higher hospital readmission rate. As well, one CCAC did not meet its target of having 90% of its patients receive personal support services within five days—instead, it was able to achieve this service level for less than 80% of its clients.

LHINs held meetings with the CCACs to discuss ways the CCACs could better meet targets in the next reporting period. For the six indicators reported to Health Quality Ontario, if the targets are not met, some CCAC CEOs' compensation may be affected, as set out in their employment contracts. For the remaining 11 CCAC indicators reported by Health Quality Ontario, if CCACs' performance declines year after year, Health Quality Ontario cannot impose any corrective measures

Figure 7: Comparison of Actual and Targeted Performance in 2013/14 and 2014/15 at Three Selected CCACs

Sources of data: Selected Community Care Access Centres

	CCAC #1			CCAC #2			CCAC #3		
Indicator	Target	Actual Results in 2013/14	Met Target?	Target	Actual Results in 2013/14	Met Target?	Target	Actual Results in 2013/14	Met Target?
Reported to Local Health Integration Networks									
% of total margin	0%	0.6%	Yes	0%	0%	Yes	0%	-0.13%	No
Balanced budget (indicated by 0 or surplus)	0+	$1.6 million	Yes	0+	0	Yes	0+	-$283,000	No
Proportion of budget spent on administration	<=9.8%	8.2%	Yes	<=10.5%	9.10%	Yes	<=9%	7.7%	Yes
Variance between forecast and actual expenditures	0%	0.3%	No[1]	0%	0	Yes	0%	-0.13%	Yes
Variance between forecast and actual units of service	0%	1.3%	No[1]	0%	0	Yes	0%	0%	Yes
90th percentile wait time from hospital discharge to service initiation (hospital patients)	< 5 days	6 days	No	<=6 days	Data not available	n/a	8 days	8 days	Yes
50th percentile wait time for home-care services—application to first service (community setting)	6 days	8 days	No	Data not reported			1 day	1 day	Yes
90th percentile wait time for home-care services—application to first service (community setting)	28 days	47 days	No	48 days	94 days	No	66 days	57 days	Yes
% of alternate level of care days	<=15%	12.8%	Yes	<=22%	20.70%	Yes	<=13.5%	13%	Yes
Clients with MAPLe[2] scores "High" and "Very High" living in the community supported by CCAC	>=6,000	7,754	Yes	>=3,000	3,333	Yes	>=4,500	5,960	Yes
Clients placed in long-term care homes with MAPLe[2] scores "High" and "Very High" as a proportion of total patients placed	>=79%	85%	Yes	>= 79%	83%	Yes	>=79%	82%	Yes
% of people registered with Health Care Connect who are referred	>=79%	91%	Yes	>=76%	78%	Yes	>=76%	n/a	n/a
# of new hospital clients admitted to Home First Program[3] per month	200	200	Yes	Data not reported			80	78.3	No

Indicator	CCAC #1			CCAC #2			CCAC #3		
	Target	Actual Results in 2014/15	Met Target?	Target	Actual Results in 2014/15	Met Target?	Target	Actual Results in 2014/15	Met Target?
Reported to Health Quality Ontario									
Client experience—% of clients who report overall satisfaction	>=92.2%	91.4%	No	>=90%	92.4%	Yes	>=94.3%	93%	No
% unplanned emergency department visits within 30 days after discharge from hospital by home-care clients referred to CCAC while in hospital	<=6.1%	6.2%	No	<=12%	14.3%	No	<=7.7%	7.3%	Yes
% of hospital readmissions within 30 days of discharge from hospital for home-care clients who receive their referrals to CCAC while in hospital	<=17.4%	18.7%	No	<=14%	20.0%	No	<=17.9%	18.8%	No
% of long-stay home-care clients who fall in the last 90 days	<=27.1%	30.0%	No	<=35.5%	36.8%	No	<=34.5%	39%	No
Five-day wait time for personal support services–% of complex care clients receiving services within wait time	>=80.2%	84.1%	Yes	>=81.4%	84.2%	Yes	>=90%	78.8%	No
Five-day wait time for nursing services–% of clients receiving services within wait time	>=92.7%	94.8%	Yes	>=93%	93.7%	Yes	>=95%	93.4%	No

1. LHINs allow CCACs to perform within an acceptable range that is slightly above or below the targeted level of performance. Even though the CCAC did not meet the target, it performed within the acceptable range.
2. MAPLe—Method for Assigning Priority Levels is an output of the RAI-HC assessment. It predicts admission to long-term care and may indicate caregiver distress.
3. Home First Program helps frail senior patients get out of the hospital and back into their homes as soon as possible, instead of assuming that a long-term care home is the only option.

on the CCACs because the CCACs are not directly accountable to Health Quality Ontario.

Further, CCACs rely on other entities to provide some of the information that they use to measure their own performance. For instance, an external survey company provides CCACs with results on client satisfaction, and the Ministry provides CCACs with data on hospital readmission. However, in both cases, CCACs experience a six-month delay in obtaining the information needed to measure their own performance in these areas.

RECOMMENDATION 14

To ensure that critical operational and financial areas are consistently assessed and are transparent to the public, the Ministry of Health and Long-Term Care, in collaboration with the Local Health Integration Networks, the Community Care Access Centres, and Health Quality Ontario, where applicable, should:

- review and assess whether all the indicators collected continue to be relevant for determining efficient and effective performance of home care;
- make more CCAC results on performance measures publicly available;
- consider establishing targets for all performance areas where needed;
- develop more outcome-based indicators to measure against overall CCAC performance; and
- make hospital readmission data available to Community Care Access Centres on a more timely basis.

MINISTRY RESPONSE

The Ministry agrees with this recommendation. Indicators are developed through LHIN-led tables that include ministry representation. The Ministry will ensure there is alignment of CCAC indicators with the system-level indicators in the Ministry-LHIN Accountability Agreement (MLAA), as well as with provincial strategies and initiatives.

The 2015–18 MLAA includes three indicators related to home and community care. The Ministry collaborated with LHINs to recommend provincial targets for all three indicators. Two indicators are new to the MLAA, although currently reported by Health Quality Ontario:

- percentage of home care clients with complex needs who received their personal support visit within five days of the date that they were authorized for personal support services; and
- percentage of home care clients who received their nursing visit within five days of the date they were authorized for nursing services.

The third indicator is the "90th percentile wait time from community for CCAC in-home services: application from community setting to first CCAC service (excluding case management)."

As part of *Patients First: A Roadmap to Strengthen Home and Community Care*, the Ministry will continue to review performance indicators and targets for home and community care and will work to make them publicly available.

The Ministry will also work with CCACs and other relevant partners, including the LHINs, to provide relevant data on hospital readmission and emergency room visits.

RESPONSE FROM CCACs

Every year, at the provincial and regional level, CCACs, the Ministry and the LHINs review performance indicators to ensure they are relevant. Together, we remove irrelevant indicators, identify outcome-based indicators and set progressive evidence-informed targets. We will continue working together to support the sharing of information at local and provincial tables to promote transparency and accountability in order to provide Ontarians with the information they need as patients and caregivers.

Appendix 1 – March 2015 Recommendations of the Expert Group on Home and Community Care, *Bringing Care Home*

[illegible]

1	[illegible]
2	[illegible]
3	[illegible]
4	[illegible]
5	[illegible]
6	[illegible]
7	[illegible]
8	[illegible]
9	[illegible]
10	[illegible]
11	[illegible]
12	[illegible]
13	[illegible]
14	[illegible]
15	[illegible]
16	[illegible]

Appendix 2—May 2015 Ten Steps to Strengthen Home and Community Care, *Patients First: A Roadmap to Strengthen Home and Community Care*

Source of data: Ministry of Health and Long-Term Care

1	Develop a statement of home and community care values
2	Create a Levels of Care Framework
3	Increase funding for home and community care
4	Move forward with bundled care
5	Offer self-directed care
6	Expand caregiver supports
7	Enhanced support for personal support workers
8	[Offer] more nursing services
9	Provide greater choice for palliative and end-of-life care
10	Develop a capacity plan

Appendix 3—Population Characteristics and Levels of Care Co-ordination[1] Intensity

Source of data: Ontario Association of Community Care Access Centres

Population Category	Population Definition	Sub-populations	Examples of Illnesses	CCAC Care Co-ordination[1] Intensity
Complex[2]	• Complex medical, physical, cognitive and social conditions at risk for hospitalization, alternate level of care or premature institutionalization • One or more health/chronic conditions with complicating factors • Direct care needs unpredictable and unstable • Support network exists, but patient is not self-reliant, with high risks in more than one area • RAI assessment score 17+ • High case management to support patient goals/outcomes	Senior adults, adults, palliative	• Dementia • Hip fracture • Alzheimer's • Dysphagia (difficulty swallowing) • Parkinson's	• High intensity to manage complex array of services and care requirements • Significant role in co-ordination/effective system navigation • High engagement with care partners within and beyond health sector • Outcomes-oriented monitoring
Chronic[2]	• One or more health/chronic conditions with complicating factors • Direct-care needs are stable and predictable • Self-reliant and/or can achieve stability with right support network • RAI assessment score 11–16 • Moderate case management intensity required for goals and outcomes	Senior adults, adults, palliative	• Dementia • Alzheimer's • Fractures • Congestive heart failure • Falls	• Moderate case management intensity focused on helping client manage health conditions and preventing further decline • Creation of support networks to address functional needs • System navigation and outcomes-oriented monitoring

Population Category	Population Definition	Sub-populations	Examples of Illnesses	CCAC Care Co-ordination[1] Intensity
Community Independence[2]	• May have one or more health/chronic conditions • Capable of independent living (anticipate end of service within a year) • Has stable support network and/or can be self-reliant • RAI assessment score of 1–10 • Low case management intensity to support goals and outcomes	Stable at risk; supported independence	• Congestive heart failure • Chronic obstructive pulmonary disease • Osteoarthritis • Depression • Dementia	• Moderate to low case management intensity • Focus toward increased independence via effective pathways and system navigation • Opportunities for prevention of further disability should be considered for this population to prevent avoidable escalation of care needs
Short Stay[3]	• Short-term acute need • Usually a clearly identified and predictable outcome and recovery time or potential to regain functional status • Requires short-term education, care or support • Stable and predictable care trajectory	Acute, wound, rehab, oncology	• Cellulitis (a spreading bacterial infection of the skin and tissues beneath the skin) • Dysphagia (difficulty swallowing) • Osteoarthritis • Urinary retention • Breast cancer	• Low case management intensity • Focus upon clients with exceptions to the pathway/expected outcomes • Focused outcome monitoring and system navigation for clients with exceptions and additional needs off the pathway
Well	• Does not receive CCAC services • Does not have chronic or acute illness/injury • Is self-reliant and manages health needs • Health needs are related to health promotion and prevention	n/a	• Anxiety • Depression • Osteoarthritis • Ovarian mass • Falls	• No case management • Referred to community service agencies for needed services such as meals on wheels, transportation, adult day programs, friendly visiting services, homemaking services, etc.

1. Formerly known as case management.
2. These clients typically receive services for longer than a year; also called "long-stay" clients.
3. These clients typically receive services for less than a year and are expected to achieve their treatment goals.

Appendix 4—Summary of CCAC Performance Indicators, 2013/14 and 2014/15

Sources of data: Community Care Access Centres, Health Quality Ontario

		Source of Indicator				Type of Indicator		
	Indicator	Local Health Integration Networks—Core Indicators[1]	Local Health Integration Networks—Explanatory Indicators[1]	Health Quality Ontario—Public Reporting[1]	Health Quality Ontario—Quality Improvement Plan[2]	Output-based Indicator	Outcome-based Indicator	Client-centric Indicator
1	% of total margin	X				X		
2	Balanced budget	X				X		
3	Proportion of budget spent on administration	X				X		
4	Variance between forecast and actual expenditures	X				X		
5	Variance between forecast and actual units of service	X				X		
6	Service activity by functional centre[3]	X				X		
7	# of individuals served	X				X		
8	90th percentile wait time from hospital discharge to service initiation (hospital patients)	X				X		X
9	50th percentile wait time for home-care services—application to first service (community setting)	X				X		X
10	90th percentile wait time for home-care services—application to first service (community setting)	X				X		X
11	% of alternate level of care days (for people who were in hospital beds and now served by CCAC)	X				X		
12	Clients with MAPLe[4] scores "High" and "Very High" living in the community supported by CCAC	X				X		
13	Clients placed in long-term care homes with MAPLe[4] scores "High" and "Very High" as a proportion of total patients placed	X				X		
14	% of people registered with Health Care Connect who are referred	X				X		X
15	# of new hospital clients admitted to Home First Program[5] per month	X				X		X

		Source of Indicator				Type of Indicator		
	Indicator	Local Health Integration Networks—Core Indicators[1]	Local Health Integration Networks—Explanatory Indicators[1]	Health Quality Ontario—Public Reporting[1]	Health Quality Ontario—Quality Improvement Plan[2]	Output-based Indicator	Outcome-based Indicator	Client-centric Indicator
16	Cost per unit service (by functional centre[3])		X			X		
17	Cost per individual served (by program/service/functional centre)		X			X		
18	Access wait time from hospital discharge to service initiation—short-stay acute clients		X			X		X
19	Access wait time from hospital discharge to service initiation—short-stay rehab clients		X			X		X
20	Access wait time from hospital discharge to service initiation—long-stay complex clients		X			X		X
21	90th percentile wait time from community setting to community home care services—short-stay acute clients		X			X		X
22	90th percentile wait time from community setting to community home care services—short-stay rehab clients		X			X		X
23	90th percentile wait time from community setting to community home care services—long-stay complex clients		X			X		X
24	Average monthly cost per episode—adult short-stay acute clients		X			X		
25	Average monthly cost per episode—adult long-stay complex clients		X			X		
26	Average monthly cost per episode—end of life clients		X			X		
27	Average monthly cost per episode—end of life clients—in the three months immediately preceding death		X			X		
28	Average monthly cost per episode—children medically fragile		X			X		
29	Expenditures incurred for clients receiving maximum service hours[6]		X			X		
30	Total joint funding (hips & knees)[6]		X			X		
31	Dialysis clients[6]		X			X		
32	# of persons waiting for service (by functional centre)[6]		X			X		X

		Source of Indicator				Type of Indicator		
	Indicator	Local Health Integration Networks—Core Indicators[1]	Local Health Integration Networks—Explanatory Indicators[1]	Health Quality Ontario—Public Reporting[1]	Health Quality Ontario—Quality Improvement Plan[2]	Output-based Indicator	Outcome-based Indicator	Client-centric Indicator
33	Client experience—overall satisfaction		X	X	X		X	X
34	% of unplanned emergency department visits within 30 days after discharge from hospital by home-care clients referred to CCAC while in hospital			X	X		X	X
35	% of hospital readmissions within 30 days of discharge from hospital for home-care clients who receive their referrals to CCAC while in hospital			X	X		X	X
36	% of long-stay home-care clients who fell in the last 90 days			X	X		X	X
37	Five-day wait time for personal support services for complex care clients			X	X	X		X
38	Five-day wait time for nursing services			X	X	X		X
39	% of home-care patients who have newly developed bladder incontinence or whose bladder functioning has not improved since their previous assessment			X			X	X
40	% of home-care patients with a new problem communicating or existing communication problem that did not improve since their previous assessment			X			X	X
41	% of home-care clients with a new pressure ulcer (Stage 2 to 4)			X			X	X
42	% of home-care clients placed in long-term care who could have stayed home or somewhere else in the community			X		X		
43	% of home-care clients who have not received influenza vaccination in the past two years			X		X		

1. Measured in 2013/14.
2. Measured in 2014/15. A Quality Improvement Plan is a set of quality commitments that a health-care organization makes to improve quality through focused targets and actions, as required under the *Excellent Care for All Act*.
3. Functional centres are created for program areas, such as care co-ordination, occupational therapy and personal support, for information-tracking purposes.
4. MAPLe—Method for Assigning Priority Levels is an output of the RAI-HC assessment. It predicts admission to long-term care and may indicate caregiver distress.
5. Home First Program helps frail senior patients get out of the hospital and back into their homes as soon as possible, instead of assuming that a long-term-care home is the only option.
6. Measured by one of three CCACs we visited but not the other two.

Chapter 3

Section

3.02 Child Protection Services—Children's Aid Societies

1.0 Background

1.1 Overview

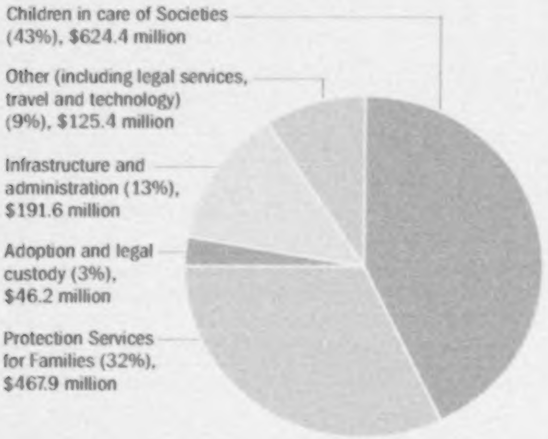
Child protection services are intended to help children and youth who have been, or are at risk of being, abused or neglected grow up in safer, more stable, caring environments. In Ontario, child protection services are governed by the *Child and Family Services Act* (Act), with the purpose to promote the best interests, protection and well-being of children. The Ministry of Children and Youth Services (Ministry) administers the Child Protection Services Program (Program) through which child protection services are provided, and the Minister has designated 47 local not-for-profit Children's Aid Societies (Societies) located throughout Ontario to directly deliver child protection services. These Societies are mandated to perform the following functions:

- investigate allegations and/or evidence that children under the age of 16 or in the Society's care or under its supervision may be in need of protection;
- protect, where necessary, children who are under the age of 16 or are in the Society's care or under its supervision, by providing the required assistance, care and supervision in either residential (e.g., foster home or group home) or non-residential (family home) settings;
- work with families to provide guidance, counselling and other services where children have suffered from abuse or neglect, or are otherwise at risk; and
- facilitate adoptions for Crown wards or children relinquished to Societies for adoption on consent by parents.

Unlike most other ministry programs, where the provision of services is subject to availability of funding, each Society is required by law to provide all the mandatory services to all identified eligible children. In other words, waiting lists are not an option for child protection services. In the 2014/15 fiscal year, ministry transfer payments to fund Society expenditures were $1.47 billion. **Figure 1** illustrates the breakdown of Society expenditures by category for the 2014/15 fiscal year, about 43% of which were spent on services for children who have been removed from their home and placed in the care of Societies such as in foster, group or relatives' homes. **Figure 2** identifies the funding provided to Societies and key service volumes for the last five fiscal years, illustrating that the number of children in the care of Societies has declined by more than 10% over this period. **Appendix 1** contains a listing of each Society's funding allocation and key service volumes for the 2014/15 fiscal year, and illustrates the differences in the funding and service volumes of each Society.

Figure 1: Children's Aid Society Expenditures by Category, 2014/15

Source of data: Ministry of Children and Youth Services



Note: Total expenditures reported by Children's Aid Societies were less than total transfer payments to Societies identified in Figure 2 by about $14.5 million. This is primarily because Ontario's Societies collectively reported a surplus in 2014/15 that will be contributed to their balanced budget fund for future expenses.

All but three of the 47 Societies belong to and are represented by the Ontario Association of Children's Aid Societies (OACAS). OACAS supports its member Societies by providing services in areas such as government relations, advocacy, information management, and education and training.

In addition, the Provincial Advocate for Children and Youth acts as an independent voice for children and youth who are seeking or receiving services under the Act. In response to a request or a complaint, or on its own initiative, the Provincial Advocate can undertake reviews, make recommendations and provide advice to the government, the Societies and other service providers such as operators of homes where Societies place children.

1.2 Children's Aid Society Governance and Accountability

Societies are not-for-profit independent legal entities, each governed by an independent volunteer board of directors. Accountability agreements between Societies and the Ministry require that each Society maintain appropriate policies and procedures for, among other things:

- the ongoing efficient functioning of the Society;
- effective and appropriate decision-making by the Society;
- prudent and effective management of the approved ministry budget allocation;
- accurate and timely fulfillment of the Society's obligations under the Act and agreement with the Ministry; and
- the preparation, approval and delivery of all reports required under the Act, related regulations, and the agreement.

Each Society's board of directors must receive regular reporting from their management with respect to the monitoring and evaluation of the Society's progress toward meeting the requirements of the accountability agreement that the above policies and procedures are intended to address.

1.3 Delivery of Child Protection Services

While front-line child protection services are provided by Societies, the Ministry is responsible under the Act for establishing minimum standards for the delivery of child protection services (protection standards). Such protection standards—intended to promote timely, consistent and high-quality services to children and their families across the province—are either legislated or prescribed in the Ministry's 2007 Child Protection Standards and other ministry policies. **Appendix 2** illustrates the general pathway through the child protection system, and **Appendix 3** outlines the key protection standards that Societies must follow in their delivery of child protection services and supports.

1.3.1 Reports of Child Protection Concerns

The Act requires anyone, including professionals who work with children, who has reasonable

Figure 2: Ministry Funding Provided to Societies and the Protection Services They Provided, 2010/11–2014/15

Source of data: Ministry of Children and Youth Services

	2010/11	2011/12	2012/13	2013/14	2014/15
Transfer Payments					
Amounts paid to Societies ($ million)*	1,451	1,492	1,501	1,512	1,470
Key Service Volumes					
Total number of inquiries and reports	168,833	170,308	166,137	158,882	162,600
Total number of investigations completed	84,548	85,526	84,540	81,393	81,771
Average number of family protection cases	26,682	27,386	28,236	27,829	26,932
Average number of children in care	17,868	17,697	17,273	16,434	15,625
Total number of adoptions completed	979	838	837	974	862

* Amounts paid to Societies include funding for other ministry priorities, including one-time funding to Societies for their historical debts in 2010/11 and 2013/14, and one-time funding to support amalgamation in each year.

grounds to suspect that a child is or may be in need of protection, to report their suspicion to a Society. A report of a child protection concern serves as the starting point of the Society's involvement.

Within 24 hours of a Society receiving a report of child protection concern, the Society must conduct and document its initial assessment of the situation. Based on its analysis of available information, the Society must determine the most appropriate response to the reported concern, which can include closing the case where the Society's initial assessment suggests that no intervention is required or conducting an investigation where a child may be in need of protection.

To help it assess the reported concern, the Society must screen for the presence of domestic violence and check its internal records and the provincial database of all Societies' records to identify any documentation of contact with the individuals involved. As well, if allegations are made that the child has suffered or may be suffering abuse, the Society must also check the Ontario Child Abuse Register for any previous history involving the child, the family or the alleged abuser.

1.3.2 Child Protection Investigations

Societies initiate a child protection investigation for any reported concern where there are reasonable and probable grounds that a child may be in need of protection due to abuse or maltreatment. The investigation is to begin within 12 hours or up to seven days from the receipt of the reported concern, depending on the level of urgency or the assessed level of threat to the child's safety determined during the initial assessment.

The objectives of a child protection investigation include assessing the immediate and long-term risks to a child, verifying claims made relating to the child's need for protection, and ultimately determining if a child needs protection services. Prior to starting an investigation, the Society worker must develop and document an Investigative Plan based on a review of all current and historical information known about the child and the family. Although other steps may be taken to suit each individual situation, all child protection investigations require mandatory steps that include:

- face-to-face contact and an interview with the child alleged to be the victim;
- direct observation of the child's living situation;
- interviews or direct observations of other children being cared for in the home;
- interview of the alleged perpetrator of the maltreatment; and
- interview of the child's non-abusing caregiver.

Societies are also required to conduct a Safety Assessment as part of all investigations to identify if any immediate safety threats to the child are present. A Safety Plan must be immediately developed where imminent threats to the child's safety are identified, to put in place the necessary interventions to secure the safety of the child and any other children being cared for in the home.

Before they complete their investigations, Societies are to complete a Risk Assessment to assess the future risk of maltreatment. Investigations are to be completed within one month of the report, but can be extended to a maximum of two months from the date of the report with the approval of a Society supervisor.

1.3.3 Management of Cases Involving Children in Need of Protection

Protection Services for Children Living with Their Families

When a Society's investigation has determined that a child is in need of protection but does not need to be removed from his or her home and taken into the Society's care, the child and family receive supports and services from the Society while the child remains at home.

The protection standards require that within one month of concluding the investigation a Society completes an assessment of the child's and family's strengths and needs and develops a Service Plan. At a minimum, the Service Plan must include specific goals, objectives and tasks, including persons responsible and time frames for completion, as well as the specific planned level of contact with the child and family by the Society caseworker. The Service Plan must be reviewed every six months while the child and family are receiving services, or when changes to family circumstances affect the relevance of the plan. The purpose of the review is to evaluate the family's progress in achieving the stated goals and objectives and to update the Service Plan as needed.

At a minimum, the caseworker is to make direct contact with families in their home once per month. The child being protected is interviewed privately either at home or in another setting. Children who cannot communicate verbally are directly observed in their own home environment, and particularly as they interact with their parent/caregiver.

Also, ministry standards require the Society caseworker's supervisor to review every ongoing child protection case with the caseworker at least once every six weeks to monitor the quality of service and compliance with relevant protection standards.

Protection Services for Children in Care of Societies

When a Society's investigation has determined that the child must be removed from his or her home and taken into the Society's care, the child may be placed with relatives, in a foster home, or in a group home.

In these cases, the Society must prepare a Plan of Care that is designed to meet the child's individual needs within 30 days of a child being placed in a foster or group home or a relative's home. The Plan of Care is to be reviewed and revised as needed within three months of the placement, and again six months after placement, and every six months thereafter until the child is discharged from care or turns 18. For children who have been in care for 12 consecutive months or longer, the Plan of Care must address seven life dimensions: health, education, identity, family and social relationships, social presentation, emotional and behavioural development, and self-care skills.

Protection standards outlined in the Act also require that the Society conduct a private visit with the child within seven days and 30 days of placement, and every 90 days thereafter, to ensure that the child is safe and receiving appropriate care.

1.3.4 Case Closure

A Society normally closes a child protection case when protection concerns have been successfully resolved and the child is no longer at risk. Before the Society's caseworker closes a case, the standards require that the caseworker review the case with the family, appropriate service providers (such as day care, schools and doctors), and a Society supervisor. At a minimum, the following criteria must be met to close the file:

- there have been no recent occurrences of abuse or maltreatment of the child;
- there is no evidence of current or imminent safety threats to the child; and
- a recent Risk Assessment confirms that risks identified in the past no longer exist or have been sufficiently reduced that they no longer pose concerns for the child's safety or well-being.

1.4 Continued Care and Support for Youth

The Ministry introduced its Continued Care and Support for Youth (CCSY) program in 2013 to replace its Extended Care and Maintenance program. Like its predecessor, the CCSY program provides financial and non-financial supports through Societies to eligible youth aged 18 to 20. Eligible youth include former Crown wards and youth previously subject to a legal custody order (where an individual has legal custody of a child but has not adopted the child). The CCSY program aims to help youth transition smoothly to adulthood and independent living.

Societies must enter into a CCSY agreement with each eligible youth for whom they intend to provide CCSY supports. A Youth Plan must also be developed jointly by a Society worker and the youth based on the youth's individual strengths, needs and goals. The plan must include the supports (including financial supports) that the Society will provide. The Society worker and the youth are to review the Youth Plan together at least once every three months to discuss the youth's progress toward meeting the stated goals. Financial and non-financial supports are not contingent on the youth making any progress toward these goals.

2.0 Audit Objective and Scope

The objective of our audit of Ontario's Children's Aid Societies (Societies) was to assess whether the Societies have effective policies and procedures for ensuring that children in need of protection receive the appropriate service in accordance with legislation, policy and program requirements; and whether funding provided to Societies is commensurate with the value of the services provided.

Prior to commencing our work, we identified the audit criteria we would use to address our audit objectives. These were reviewed and agreed to by senior management at the Ministry and the Societies we visited. Our audit work was predominantly conducted between November 2014 and June 2015.

This report deals only with the Societies' role in child protection services in the province. Our report on the Ministry's role is found in **Section 3.03** of this Annual Report.

The scope of our audit of Societies included a review and analysis of relevant files, including child protection files, to assess compliance with legislated and ministry protection standards, as well as interviews with appropriate staff at the Ministry's head office and at seven Societies (Toronto, Durham, Kingston, Sudbury, Muskoka, Hamilton and Waterloo). We also surveyed all Societies in Ontario, and received responses from most of them, on the new funding model and their caseload benchmarks. As well, we surveyed the 14 Societies that were expected to be early adopters in relation to the Child Protection Information Network.

In addition, we met with senior staff at the Ontario Association of Children's Aid Societies, which represents 44 of the 47 Societies in Ontario, to gain a better understanding of their role and the issues in the child protection services sector. We also met with the Provincial Advocate for Children and Youth and the Chief Coroner of Ontario to obtain their perspective on child protection services and related challenges in Ontario.

We also reviewed reports prepared by the former Commission to Promote Sustainable Child Welfare, established by the Ministry in 2009 to examine and recommend changes to the child protection sector. We additionally contacted the offices of the Provincial Auditor of Saskatchewan and the Auditor General of Alberta to discuss information systems used in the delivery of social services in their provinces.

3.0 Summary

The role of Societies in child protection services is important but also difficult. Their interventions are not always welcome, and both their action and inaction can have a significant impact on the safety and well being of children in need of their services. In this regard, we note that Societies need to improve their adherence to protection standards to ensure that children receive appropriate care and protection.

With 47 Societies operating independently across the province, we also noted differences in services and supports that are provided by Societies, along with variances in Society worker caseloads, which may have an impact on the consistency of care and supports received by children and families across the province. We noted that the average number of family protection cases per worker ranged from a low of eight to a high of 22 per month.

The following are some of our key concerns regarding Societies' delivery of child protection services:

- **Societies may be closing child protection cases too soon.** In more than half the files we reviewed that subsequently were reopened, the circumstances and risk factors that were responsible for the subsequent reopening of the case had been present when the case was initially closed. On average, the subsequent reopening of the case occurred within 68 days of the initial case closure, including several cases where child protection concerns were reported to the Society within one week of the prior case closure.
- **Societies did not complete child protection investigations on a timely basis, and did not always complete all required investigation steps.** Such requirements are intended to ensure that the investigation results in credible evidence and information being obtained, and that the investigation is not more prolonged or intrusive than is necessary. In more than one third of investigations we reviewed, Safety Assessments to identify immediate safety threats to the child were either not conducted or not conducted on time. Also, none of the child protection investigations we reviewed at the Societies we visited were completed within the required 30 days of the Society receiving the report of child protection concerns. On average, the investigations were completed more than seven months after the Society's receipt of the report.
- **Societies did not always conduct timely home visits and service plan reviews in cases involving children still in the care of their family.** In more than half the files we reviewed, Society caseworkers were able to visit the children and their families at home only every three months, instead of once a month as required by protection standards. In addition, in more than half the cases we reviewed, Service Plan reviews were not conducted every six months as required. Service Plan reviews include important steps such as evaluating the family's progress in achieving the goals stated in the plan to ensure the safety and well being of the child, and making adjustments to the plan where necessary.
- **Societies did not always complete and review Plans of Care on a timely basis in cases involving children in Societies' care.** In about one third of cases we reviewed, plans designed to address, among other things, a child's health, education, emotional

and behavioural development, and self-care skills were not completed or reviewed on a timely basis.

- **Societies did not always conduct child protection history checks on individuals involved with the children.** Failure to conduct such crucial checks for the presence of domestic violence or child abuse at the time the child protection concern is reported not only increases the risk that children are left in the care of individuals with such history, but also impacts the Societies' ability to properly assess the risk to children. In some of the cases we reviewed, Societies did not check their own records and the province's database of all Societies' records to identify the prior history of the people involved with the children. Also, in more than half of the files we reviewed where allegations of abuse were made, Societies did not check against the Ontario Child Abuse Register to determine whether there was a record of abuse relating to the child, the family or the alleged abuser.
- **The Continued Care and Support for Youth (CCSY) program is not fully achieving its objective of preparing youth for transition out of care.** The effectiveness of this program, which aims to help youth transition to adulthood and independent living, is impacted by Societies' non-compliance with ministry policies and their limited ability to influence youth to actively participate in transition planning. For example, in almost half the files we reviewed, there was no evidence that the youth were actively involved in, and were making reasonable efforts to prepare for, transitioning to independent living and adulthood. In 2013, the Ministry eliminated the requirement for youth to work toward achieving established goals in order to continue to receive financial and non-financial CCSY supports, limiting to an extent the ability of Societies to influence youth to work toward these goals.
- **Opportunities exist to ensure that funding is better used to provide direct services to children and their families.** For example, cost efficiencies could potentially be achieved through amalgamations of neighbouring Societies to realize economies of scale and through centralizing some administrative functions that are currently performed separately by Societies.

This report contains six recommendations, consisting of eight actions, to address the findings noted during this audit.

OVERALL RESPONSE FROM CHILDREN'S AID SOCIETIES AND THE ONTARIO ASSOCIATION OF CHILDREN'S AID SOCIETIES

The audit examined practices at seven of Ontario's 47 Children's Aid Societies (Societies). This response consolidates their views and those of the Ontario Association of Children's Aid Societies (OACAS). The OACAS and the Societies welcome the Auditor General's recommendations.

The Children's Aid Society sector is working in collaboration with the OACAS and have a number of initiatives under way that will respond to the findings in this report. In particular, significant time and resources have been invested in defining, collecting and analyzing data for a comprehensive set of Performance Indicators. These will provide valuable information about the impact of services delivered to children and families, as well as about the capacity and governance of Societies across the province. Continued and strong financial and leadership support from the Ministry of Children and Youth Services is needed for this work to realize its full potential. This, along with other initiatives has served to strength an already accountable sector.

This report highlights the challenging funding environment for child protection and

Societies. The OACAS and its members are eager to work with the government to improve the funding issues and are committed to ensuring that efficiencies are realized across the province.

4.0 Detailed Audit Observations

4.1 Societies Need to Better Adhere to Protection Standards to Ensure Children Receive Appropriate Care and Protection

The seven Societies we visited did not always comply with legislative, regulatory and ministry policy requirements intended to promote timely, consistent and high quality delivery of child protection services.

Both the Chief Coroner and the Provincial Advocate recognize the difficult work of Children's Aid Societies in protecting children from harm. However, they also acknowledge that the child protection system has gaps that need to be addressed in order to ensure that society's most vulnerable children and youth receive appropriate care and experience better outcomes. Some of our observations regarding protection services provided by Societies are consistent with findings and recommendations from the Chief Coroner's reviews of child deaths where Societies had involvement with the child. Over the last five years, the Coroner has reviewed over 200 cases of child deaths involving Societies.

Our concerns regarding the Societies' delivery of protection services are found in the following sections.

4.1.1 Societies Did Not Always Conduct Child Protection History Checks on Individuals Involved with Children

In more than half the cases we reviewed where a child had suffered abuse or was alleged to have suffered abuse and an abuse history check against the Ontario Child Abuse Register was required, we found that Societies did not conduct such checks to determine whether there was a record of any previous history of abuse involving the child, the family or the alleged abuser. We also noted that, in some cases, Societies did not screen for the presence of domestic violence in the child's family, and/or check their own records and the province's database of all Societies' records to identify previous concerns about the people involved. These checks are important because they help assess the level of threat to the child's safety when a case is initially reported. The rationale for not conducting the required checks was not documented in these cases.

Our concerns regarding these history checks are consistent with the findings of Ontario's Chief Coroner, who has consistently noted over the last five years that, based on his reviews of child deaths, child protection history checks were not always completed on everyone involved with the child. The Chief Coroner has also noted the importance of obtaining and incorporating previous child protection history to inform Societies' assessment of patterns of behaviour and risk to children.

Failure to conduct these crucial history checks puts children at serious risk of being placed or left in the care of individuals with a history of abusing children. This risk was realized when Jeffrey Baldwin died in 2002 after years of neglect and maltreatment by his maternal grandparents, both of whom had been previously convicted of child abuse. The grandparents' previous history was not known to the Society because of its failure to check its own internal records. Such gaps in conducting child protection history checks may still exist 13 years after the death of Jeffrey Baldwin.

4.1.2 Societies Did Not Complete Child Protection Investigations on a Timely Basis and Did Not Always Complete All Required Investigative Steps

The Societies we visited had not started about one-quarter of the investigations we reviewed within the required response time, which ranges from 12 hours to seven days based on the level of urgency or the assessed level of threat to the child's safety. On average, these investigations began five days after the required response time. In half these cases there was no rationale documented for the departure from the required response time and/or no documented approval by a Society supervisor for the departure, as required.

In addition, we found that Societies had not completed some key investigative steps, or had not completed these steps on time. For example, in almost half the investigations we reviewed, the mandatory investigation plan that outlines the investigative approach and steps to be taken was either not completed or not completed before the investigation began, as required. As well, we found that in more than one-third of the investigations we reviewed, the Societies either did not complete a Safety Assessment (which should identify the presence of any immediate safety threats to the child), or had not completed the Safety Assessment within the required response time (12 hours to seven days). In these cases, the Safety Assessment was completed an average of almost 50 days from the date of the referral.

The Societies we visited did not complete any of the investigations we reviewed (to determine if the child is in need of protection) within 30 days of the case being brought to the Society's attention, as required. In one case, no investigation was ever completed. While the length of an investigation can be extended, with the approval of a supervisor, to a maximum of two months from the date the case was reported to the Society, in more than half the cases we reviewed there was no evidence of supervisor approval for an extension, or valid justification for extending the length of the investigation. Where investigations were extended and an explanation was documented, we noted the most common reason was that Societies were unable to reach the families to complete a proper assessment necessitating an extension to the investigation. On average, the investigations we reviewed were completed more than seven months after the Society received the report, and one took almost two years. Delays in investigations put children at risk longer than necessary, because services and supports to ensure a child's safety and well-being remain uncertain while investigations are being conducted.

4.1.3 Societies Did Not Always Conduct Timely Home Visits and Service Plan Reviews in Cases Involving Children Still in the Care of Their Family

In almost two-thirds of the cases we reviewed involving children needing protection while still in the care of their family, the Societies had not completed a Service Plan on time—within the first month of service. A Service Plan outlines specific goals and objectives for the protection and well-being of the child and the time frames for meeting them, as well as how often a caseworker will contact the child and family. Also, at the Societies we visited we found that in half of the cases we reviewed they did not complete an assessment of the family's and child's strengths and needs within the first month of providing service as required.

We also found that in more than half the cases we reviewed, caseworkers did not conduct Service Plan reviews every six months as required, including some instances where case reviews were not completed at all. The purpose of reviewing the Service Plan is to meet its key steps in ensuring the child's safety, such as evaluating progress in achieving goals and objectives, and making adjustments to the Plan as needed for the same purpose. In addition, we found that in more than half the cases reviewed, the Service Plan that was currently in place did not include details intended to ensure the child's safety, such as specific goals, objectives and tasks, the persons responsible for tasks, time frames for completion, or the planned level of Society contact with the child and family.

While we noted that caseworkers made attempts to make scheduled and unannounced visits to the child and family, in more than half the cases we reviewed home visits did not occur every month. Instead, we found that home visits by caseworkers with the children and their families occurred on average every three months during the period of our review. The timeliness of such visits is of particular importance since they are to include an interview with the child, or observation that the child is safe and properly cared for. The Ontario Chief Coroner's previous reports stated that workers should receive additional training and support so that they are better equipped to encourage caregivers who are reluctant to participate in child protection services, citing that if repeated attempts to meet with families are unsuccessful, a more intrusive approach may be required to ensure the safety of the child.

We also found Society supervision of caseworkers responsible for cases involving children still in the care of their family was not done on the required schedule. Although all such cases are required to be reviewed every six weeks in scheduled supervision sessions between a Society caseworker and his or her supervisor, we noted that, on average, documented supervision sessions occurred every 11 weeks, or almost double the minimum requirement.

4.1.4 Societies Did Not Always Conduct Timely Visits and Reviews of Plans of Care in Cases Involving Children in Societies' Care

We noted that, for almost one-third of cases of children in Societies' care we reviewed at the Societies we visited, the Society's reasons for placing a child in a specific placement, such as a group home or foster home, were not clearly documented or not documented at all, to support that the placement was the best option for the child.

We also noted that in about one-quarter of cases we reviewed the Societies did not complete Plans of Care within 30 days of a child's placement in a group home or foster home. In addition, in over 10% of the cases we reviewed Plans of Care were not reviewed in the required time frames. These plans are to be reviewed within three months of placement, and then within six months of placement and every six months thereafter. Plans of Care are important, as they are designed to meet each child's particular needs and track the child's progress in seven key areas that include health, education, and family and social relationships.

Consistent with our observations in **Section 4.1.3**, we noted that caseworkers made attempts to conduct private visits with children during the period of our review. Although we noted that private visits did occur, they did not occur within the legislated time frames in about 10% of the cases we reviewed, increasing the risk to these children. Societies are required to conduct private visits with children in their care within seven days and 30 days of admission and placement, and every 90 days thereafter.

RECOMMENDATION 1

To ensure that children and youth who need protection receive timely, consistent and appropriate care and supports, Children's Aid Societies should ensure that they meet all legislative, regulatory and program requirements in the following areas:

- conducting child protection history checks on all individuals involved with the child upon receipt of reports of child protection concerns;
- conducting child protection investigations within the required response time;
- conducting home visits and Service Plan reviews in cases involving children still in the care of their family within required time frames; and
- conducting Plan of Care reviews in cases involving children in the care of Societies within required time frames.

RESPONSE FROM CHILDREN'S AID SOCIETIES AND THE OACAS

Children's Aid Societies (Societies) and the Ontario Association of Children's Aid Societies

(OACAS) agree that children, youth and families in Ontario should receive timely, consistent and appropriate care and supports.

We agree it is important that record checks are completed where there are allegations of suspected abuse or neglect of children, and Societies will ensure that these checks are performed on a consistent basis.

Societies and the OACAS are engaged in a long-term process to ensure that the evaluation of their work is focused on measuring the outcomes for the children and families they serve. Most important is the need to measure that appropriate decisions are made in a timely way to ensure the delivery of high quality of services, rather than solely focusing on whether a decision was made.

The OACAS and Societies will work together to develop methods to improve compliance with all standards identified by the Auditor General, including timely investigations, home visits, Service Plan reviews, and Plan of Care reviews.

4.2 Societies May Be Closing Child Protection Cases Too Soon

At the seven Societies we visited, we reviewed a sample of child protection cases that had been reopened after initially being closed, involving children who remained with their family and those who were admitted into the Society's care. We found that Societies may be closing cases prematurely, risking the well-being of children. Specifically, we found that:

- In almost half the reopened cases we reviewed, risk factors related to initial reports of child protection concerns were still present or not completely addressed at the time the case was initially closed. We found, for example, instances where a file had been closed after only one telephone conversation and without any contact with the child, and where physical discipline and domestic violence were noted as typical occurrences.
- In more than half the reopened cases we reviewed, the circumstances and factors that were responsible for a subsequent report of a child protection concern to the Society had been present when the case was initially closed. On average, the subsequent report occurred within 68 days of the previous case closure, including several cases where the Society had to intervene within one week. For example, in one case, at the time of closure the mother stated she was finding it difficult to care for her children, but the case was still closed. The file had to be reopened seven days later after the family doctor reported that the mother still needed Society services and had a history of postpartum depression and anxiety, and was on several prescribed medications. In another case, a child's school reported concerns regarding the mother's behaviour, specifically surrounding her drug use. Previously, a case had been opened for this child due to similar concerns about the mother, but was closed because the investigation did not verify the mother's drug use. The lack of this verification may have been reason enough to keep the case open, especially given that the mother's drug use was the reason for the subsequent report.

Our concerns over the premature case closures and children being discharged prematurely from Society care are consistent with the findings by Ontario's Chief Coroner. Over the last few years, the Chief Coroner's Paediatric Death Review Committee reports have consistently identified concerns surrounding the premature closing of files despite a long history of Society involvement, such as when families are difficult for the Society to locate or not receptive to Society involvement.

RECOMMENDATION 2

To ensure that protection cases are not closed prematurely, Children's Aid Societies should ensure that risk factors that are present are appropriately addressed before they close these cases. As well, an annual review and analysis of all reopened cases should be performed to determine if any corrective action is necessary to minimize premature case closures.

RESPONSE FROM CHILDREN'S AID SOCIETIES AND THE OACAS

Children's Aid Societies (Societies) and the Ontario Association of Children's Aid Societies (OACAS) agree and recognize the need to ensure risk factors are addressed through their ongoing work with children and families. Data will be collected regarding the recurrence of maltreatment, and analysis of that data will inform changes in practice if required.

In addition, Societies are committed to the provision of quality services and strive to promote excellence through the establishment of a culture of organizational learning and continuous quality improvement. This work is done through internal case audits, program evaluation and client/stakeholder engagement, with the findings identifying best practices and supporting improvement initiatives.

4.3 Continued Care and Support for Youth (CCSY) Program Is Not Fully Achieving Its Objective of Preparing Youth for Transitioning Out of Care

In 2014/15, approximately 3,400 youth were receiving CCSY supports from Societies. Our review of the CCSY program identified that substantial improvement was needed in the delivery of the program by Societies and in the program's effectiveness in helping youth transition to adulthood and independent living, as intended.

4.3.1 Plans to Help Youth Prepare for Independent Living Are Not Always in Place or Monitored by Societies

We reviewed the required CCSY agreements between Societies and youth outlining the roles and responsibilities of the youth and the Society and found that, in some cases, the agreements were either not in place or not signed by all parties. Ministry policy requires that the CCSY agreement must be signed by the youth and a Society worker, and approved by the Society's executive director or designate. Each agreement lasts 12 months and can be renewed annually.

We also found that Youth Plans, which include the youth's goals and planned actions while receiving financial and non-financial support, were not always completed, reviewed and updated on a timely basis. The initial Youth Plan must be finalized within 30 days of the date the CCSY agreement was signed, and must be updated at least once every 12 months. Specifically, we found that:

- In about one-quarter of the cases we reviewed, the initial Youth Plan was either not completed within one month of the CCSY agreement being finalized as required, not signed by all required parties (youth, Society worker, and the Society's executive director or designate), or not completed at all.
- In almost half of the cases we reviewed, the Youth Plan had not been reviewed at least once every three months as required, to discuss and assess the youth's progress toward the plan's stated goals. We also noted some cases where the review never took place.

4.3.2 Societies' Ability to Influence Youth Is Limited by Lack of Requirement for Youth to Actively Participate in Transition Planning

As discussed in **Section 1.4**, the Continued Care and Support for Youth (CCSY) program is intended to help youth develop the skills they need as they transition to adulthood and independent living. We noted that when the CCSY program replaced the Ministry's Extended Care and Maintenance program in 2013, the Ministry eliminated the requirement for youth to work toward achieving their pre-established and agreed-to goals in order to continue receiving supports. Under the current CCSY program, support provided to youth is not contingent on the youth's progress toward meeting his or her goals as stated in the Youth Plan.

The Ministry explained that this requirement was eliminated as part of its attempt to reframe the CCSY program, from being an alternative to social assistance to a means of enhanced transition planning in order to improve outcomes and prevent poverty for youth leaving the care of Societies. Nevertheless, as Societies indicated to us, this change ultimately affected the Societies' ability to influence youth in their transition to independent living and adulthood.

In almost half of the cases we reviewed, we found there was no evidence that the youth were actively involved in preparing toward transitioning to independent living and adulthood as intended. In these cases it was not evident that youth had made reasonable efforts to prepare for the transition to adulthood.

RECOMMENDATION 3

To help improve the Continued Care and Support for Youth (CCSY) program's effectiveness in assisting youth to transition to independent living and adulthood:

- Children's Aid Societies should ensure that signed agreements are in place, and Youth Plans are created, reviewed and updated accordingly; and
- the Ministry of Children and Youth Services should evaluate whether providing supports through the CCSY program that are not contingent on a youth demonstrating progress toward meeting his or her goals for transitioning to independent living and adulthood is resulting in better youth outcomes (as opposed to requiring these supports to be contingent on such progress).

RESPONSE FROM CHILDREN'S AID SOCIETIES AND THE OACAS

Children's Aid Societies (Societies) and the Ontario Association of Children's Aid Societies (OACAS) agree and appreciate the thoughtful comments provided by the Auditor General with respect to the Continued Care and Support for Youth (CCSY) program and will ensure signed agreements are in place, and that Youth Plans are created, reviewed and updated accordingly.

Given the obvious need to focus on youth autonomy in order to promote resiliency and life skills development, we are supportive of the CCSY program. As such, the OACAS and Societies welcome formal opportunities to work with the Ministry of Children and Youth Services (Ministry) to consider ways to support youths to plan for their transition to adulthood.

The Ministry decided that financial supports under the CCSY program would not be tied to a youth's goals and plan to meet those goals. Although at this time the Ministry does not intend to provide CCSY supports contingent upon goal achievement, the Ministry is currently working toward establishing outcome measures for the CCSY program, and will consider reassessing supports contingent upon progress in a youth's goals and other opportunities to support youths through the CCSY program.

4.4 Differences between Societies Lead to Inconsistencies in Child Protection Services throughout the Province

In 2010, the former Commission to Promote Sustainable Child Welfare (Commission) noted that there were more differences than similarities between Societies in areas such as capacity to deliver services and models of service delivery, resulting in variations in the availability, management and delivery of child protection services at a local level. The Commission went so far as to state that the way children and families received child protection services across Ontario varied so much that it was difficult to claim that all Societies provided the same services under the same mandate. Five years after the Commission published its findings, we found through our analysis and visits to Societies that differences still exist.

4.4.1 Variances in Worker Caseloads between Societies May Affect Consistency of Service Delivery

The Ministry has not established caseload standards against which Societies can assess the reasonableness of their staff's workload and can ensure they are effectively staffed to deliver timely and appropriate child protection services. We noted during our visits to Societies and through our survey that most Societies have established their own internal caseload benchmarks, which in many cases have also been incorporated into their collective bargaining agreements with their caseworkers.

We analyzed the staffing and service data reported by all Societies (including the seven we visited) for the 2014/15 fiscal year and noted a wide range among the Societies in caseloads by caseworker. **Figure 3** presents a province-wide comparison of caseloads in Societies for 2014/15. It shows, for example, that the total number of investigations open during 2014/15 per worker ranged from a low of 50 to a high of 111, and the average number of

Figure 3: Province-wide Comparison of Caseloads in Children's Aid Societies, 2014/15

Prepared by the Office of the Auditor General of Ontario

	Central	East	North	Toronto	West	Province
			Number of Societies			
Societies in the region	7	10	12	4	13	**46[1]**
Societies with caseload benchmarks[2]	6	6	4	4	12	**32[3]**
Societies with caseload benchmarks in their collective agreements	5	5	4	2	7	**23[3]**
			Actual Caseload[4]			
Investigations per Worker[5]						
Minimum	52	52	54	72	50	**50**
Maximum	108	110	111	94	92	**111**
Average	78	84	69	80	73	**75**
Family Protection Cases per Worker[6]						
Minimum	8	13	13	12	11	**8**
Maximum	22	32	21	16	19	**32**
Average	15	17	17	14	15	**16**
Children-in-care Cases per Worker[6]						
Minimum	11	8	9	9	12	**8**
Maximum	19	21	24	18	19	**24**
Average	16	16	16	15	16	**16**

1. In 2015/16 there are 47 Societies in Ontario.
2. Caseload benchmarks varied among Societies, with many benchmarks expressed as ranges and maximums, and others established as targets or triggers for caseload review.
3. Based on responses to our survey received from 40 Societies.
4. Extreme outliers were excluded to allow for a more representative range.
5. Figures are based on the total number of investigations open during the year.
6. Figures are based on average monthly caseload numbers for the year.

family protection cases per worker ranged from an average low of eight to a high of 32 per month.

Caseworkers told us that in addition to managing their assigned caseloads, they may also have other responsibilities such as training new workers, participating in committees for Society initiatives, providing peer support and supervising social work students. Caseworkers also noted during our discussions that cases can vary significantly in complexity and thus in time spent. Nonetheless, the vast differences in worker caseloads raise concerns about the consistency of child protection services across the province.

4.4.2 Differences in Services Offered by Societies Result in Inconsistencies in Supports Received by Families

The seven Societies we visited varied in size, ranging from an organization with 50 staff and a budget of $7 million to an organization of almost 750 staff with a budget of approximately $160 million. While these differences in size can be attributed to Societies serving communities that can differ substantially in size, geographic distribution and socio-economic profile, this wide variation results in Societies having different capacities for providing child protection services. For example, one Society we visited had an on-site dental clinic, and another we visited had an on-site medical clinic, to ensure that children and their families receive timely and appropriate health services. Children served by the other Societies are referred to dental and medical clinics in the community.

The differences in capacities have also impacted the types of specialized support services offered by the Societies. For example, two of the seven Societies have Registered Nurses who complement their frontline staff, providing physical assessments and intensive monitoring for high-risk infants living with their family or in the Society's care. Conversely, one of the Societies we visited provided in-home supports (such as assisting with parent-teen conflicts) but indicated that recent reductions in funding affected the way it provides these supports. Specifically, in order to provide such services to the broadest number of families, this Society has had to revise its referral criteria for this program and to set a limit on the number of direct service hours provided to each family.

4.4.3 Societies Provide Different Levels of Financial Support to Youth Transitioning Out of Care

The Ministry informed us that during the development of the CCSY policy, youth who were formerly in Societies' care indicated the importance of setting a provincial rate for the monthly payment in order to create consistency for young people across the province. Consequently, the Ministry set a monthly financial allowance at $850 to cover basic living expenses such as food, shelter and clothing. However, the Ministry has also given Societies the budgetary flexibility to provide youth with additional financial support to address other costs such as transportation, dental and health services, and moving costs.

We discovered that the Societies we visited provided different amounts of financial supports to youth in the CCSY program. All Societies provided the Ministry-established monthly allowance of $850; however, individual Societies' ability to provide additional support varied, so that the base monthly allowance ranged from $850 to $1,000 in the Societies we visited. In addition, some Societies offered further additional ("supplementary") supports that varied in type and amount. Examples of these included a monthly "success incentive" of $80 for which no criteria had been established, a monthly transportation allowance of $125, and $270 in birthday and Christmas allowances. Not all youth may be receiving the same benefit over the $850 monthly allowance set by the Ministry.

RECOMMENDATION 4

To ensure the effective and efficient delivery of child protection services in accordance with legislative, regulatory, and policy and program requirements, the Ontario Association of Children's Aid Societies should work with the Ministry of Children and Youth Services to:

- develop standard caseload benchmarks for child protection services against which both Children's Aid Societies and the Ministry can periodically compare caseloads and ensure that Society caseloads are reasonable; and
- determine what impact the differences in supports provided by Societies have on the quality of child protection services across the province, and develop a plan to ensure that children and families have equitable access across Ontario to the supports they need .

RESPONSE FROM CHILDREN'S AID SOCIETIES AND THE OACAS

The Ontario Association of Children's Aid Societies (OACAS) and Children's Aid Societies (Societies) agree and welcome the findings and recommendation of the Auditor General regarding the development of standards and benchmarks for caseloads at Societies. While there is some variance in the size of caseloads at different Societies, we acknowledge the importance of effectively promoting child protection, and preventing abuse and neglect in the face of declining budgets at many agencies, and will work with the Ministry of Children and Youth Services (Ministry) in developing caseload benchmarks.

The OACAS would be pleased to be engaged with the Ministry on the development of a plan to analyze the impact of caseload sizes on service delivery and the quality of services for vulnerable children, youth and families.

The OACAS looks forward to an opportunity to work with the Ministry to determine the impact the differences in supports provided by Societies have on the quality of child protection services across the province. It is our view that children, youth and families should have equitable access to local, high-quality services across the province. We believe that funding approaches for child protection have contributed to this in some respects and look forward to understanding options in the context of the upcoming review of the Child Protection Funding Model. Additionally, the availability of urgent services provided by Society partners in the children's services system is unevenly distributed across the province, and this has a distinct impact on the services that Societies are able to provide to their community. The OACAS looks forward to ongoing work with the Ministry to determine how to develop an integrated strategy for servicing Society clients.

4.5 Opportunities Exist to Ensure That Funding Is Better Used to Provide Direct Services to Children and Their Families

As noted in **Section 4.6.3** in our report on the Ministry's role in administering the Child Protection Services Program in **Section 3.03** of this Annual Report, almost half of Ontario's Societies received an average of 4.5% less funding in 2013/14 than the total funding they received in 2012/13, including one Society whose funding was reduced by $1.9 million, or 9.5%. The Societies' legal responsibility to provide all mandatory services to all identified eligible children, combined with the new regulatory requirement that Societies must operate within their often reduced funding allocations, has led Societies to implement various cost-cutting strategies. For example, Societies have reduced staff and discontinued programs in their efforts to balance their budgets. Several Societies have raised concerns that although to date they have been able to deliver their legally mandated protection services, their ability to effectively deliver mandated services while operating within their allocation is questionable in the future. In light of these budgeting challenges, we found that opportunities exist for child protection services funding to be better used to provide direct services to children and their families.

4.5.1 Cost Efficiencies Could Potentially Be Achieved through Amalgamations of Societies and Shared Service Arrangements

As shown in **Figure 4**, the direct costs of providing child protection services vary widely among Societies across the province. For example, the cost of family protection cases ranges from $4,700 per case to approximately $16,100 per case. In 2010, the former Commission to Promote Sustainable Child Welfare (Commission) noted that size differences among Societies (both in budget and staffing) gave rise to varying levels of scale and capacity to cope with changes in service demands, including costs associated with children who have complex needs.

The Commission recommended that a number of Societies move toward amalgamating with a neighbouring Society in order to realize economies of scale. The Commission also noted that in some cases economies of scale can create efficiencies, which in turn free up valuable resources for services to children and families. From 2011 to 2015, 16 Societies have amalgamated into seven new Societies, including two Societies that recently amalgamated into a new Society on April 1, 2015. Among other advantages, the Ministry's estimate of cost savings attributed to the amalgamations (excluding the most recent amalgamation) indicates that the Societies projected savings of about $6.6 million in 2013/14.

Another recommendation of the Commission was that a range of business functions currently performed separately by Societies should be implemented as shared services across all Societies. Some of the candidates for shared services include back-office functions, training and recruitment,

Figure 4: Province-wide Comparison of Cost per Case in Children's Aid Societies, 2014/15

Prepared by the Office of the Auditor General of Ontario

	Central	East	North	Toronto	West	Province
Number of Societies in the region	7	10	12	4	13	**46**[1]
			Expenditure per Case ($)[2]			
Investigations[3]						
Minimum	1,276	1,142	1,227	1,705	1,292	**1,142**
Maximum	2,543	2,363	2,513	2,342	2,316	**2,543**
Average	1,750	1,618	1,720	1,961	1,746	**1,736**
Family Protection Cases[4]						
Minimum	7,193	4,749	5,725	10,617	8,377	**4,749**
Maximum	14,104	16,097	12,200	13,891	12,808	**16,097**
Average	11,024	10,015	8,892	12,085	10,552	**10,242**
Children-in-care Cases[5]						
Minimum	30,929	29,636	33,317	45,759	26,879	**26,879**
Maximum	55,249	61,133	57,437	48,801	41,820	**61,133**
Average	43,916	43,141	41,069	47,358	35,459	**40,771**

1. In 2015/16 there are 47 Societies in Ontario.
2. Extreme outliers were excluded to allow for a more representative range.
3. Figures are based on the total number of investigations open during the year. Expenditures include salaries and benefits, and training and recruitment.
4. Figures are based on average monthly caseload numbers for the year. Expenditures include salaries and benefits, training and recruitment, and client service expenditures.
5. Figures are based on average monthly caseload numbers for the year. Expenditures include salaries and benefits, training and recruitment, client service expenditures, and boarding expenditures.

promotion and publicity, and specialized assessments such as drug testing and psychological services. Based on our analysis of expenditure data provided by the Societies, expenditures related to the aforementioned services totalled approximately $196 million in 2014/15, comprising 13% of total expenditures. Although work on shared services is still under way, and the Commission did not quantify potential savings from implementing shared service arrangements, one of the benefits for Societies identified by the Commission was the flexibility to redirect resources from back office functions and infrastructure, and reinvest them in direct client services.

4.5.2 A Significant Portion of the Cost of Implementing the Child Protection Information Network Is Funded through Societies' Operating Budget

Functions related to the province-wide Child Protection Information Network (CPIN) are among those identified by the Commission as candidates for shared services, including finance-related functions and those that support the delivery of child protection services. As mentioned in **Section 4.8.2** of our report on the Ministry in **Section 3.03** of this Annual Report, over half of the Societies do not have the resources to provide key functions to support the implementation of CPIN.

Our survey of the 14 Societies that were expected to implement CPIN by the end of the 2012/13 fiscal year indicated that these Societies have incurred expenses of approximately $18.7 million to prepare for CPIN implementation, only $2.8 million of which have been specifically subsidized for CPIN by the Ministry. In addition, our survey of the five Societies that have implemented CPIN indicated that, since going live on CPIN, those Societies have spent an additional $5.4 million to manage workload pressures resulting from inefficiencies in CPIN.

These additional costs are funded through the Societies' own operating funds, which may cause further hardship and potentially impact protection services, as Societies indicated that they are already experiencing significant financial constraints resulting from the funding model and balanced budget requirement described in **Section 4.6.3** of our Ministry report in **Section 3.03** of this Annual Report.

4.5.3 Excessive and Questionable Spending by an Executive Director Was Approved by One Society's Board

At one of the Societies we visited, based on our review of executive credit card expenditures, we identified excessive and questionable spending by its former executive director being approved by the Society's board. These expenses also lacked supporting documentation to support that they were incurred for Society business. Specifically:

- A hotel room was rented in Toronto for a two-year period irrespective of whether it was used. Charges amounting to almost $90,000, including over $10,000 in incidentals such as parking and telephone charges, were paid by the Society. Although the Society and its board advised us that this room was rented because the executive director represented the Society as well as other Societies in a number of committees and other activities concerning child protection, it could not provide supporting documentation to demonstrate and substantiate its claim. In addition, the Society did not consider more cost-effective options such as leasing a condominium, which could have reduced Society costs considerably—perhaps by as much as 50%. We were also advised that the hotel room that was rented was used less than 50% of the time in the first year, which further questions the rationale for the annual rental.
- The executive director had been previously provided with a $600 per month car allowance (to cover any transportation cost associated with Society business) that was then converted into the executive director's salary. However,

we noted that in the past year, the executive director incurred over $14,000 in car rental charges that were reimbursed. Further, we noted that these charges included an instance where the Society paid more than $1,000 per week for a rental car over the course of three weeks. The Society could not provide an explanation for incurring such an excessive and extravagant cost for a weekly rental.

- Other excessive costs were also incurred by the executive director and reimbursed by the Society, such as charges for meals that exceeded Society limits and meals that were claimed without itemized receipts.

The board acknowledged that its oversight of expenses should have been more disciplined, and that it would be in the future. Likewise, we were advised by the Society and its board that the former executive director has been contacted and will reimburse the Society for costs that were not consistent with the Society's policies, such as excessive and unsupported meal expenses.

We also noted that a recent review undertaken by the Ministry at another Society highlighted similar concerns over the oversight of CEO expenses. It noted that oversight by the board of directors was ineffective and that many questionable expenses were claimed and reimbursed to the CEO, including duplicate expenses, expenses that were not supported by itemized receipts, meal expenses in excess of daily limits, and the cost of a personal tour and dinner. A review commissioned by the Ministry also highlighted that this Society's board of directors approved advance payments to the CEO on a retirement payout before the CEO's retirement, in violation of ministry policies.

RECOMMENDATION 5

To ensure that funding for child protection services is used appropriately to provide direct services to children and families, Children's Aid Societies should work with the Ministry of Children and Youth Services to identify opportunities to improve service delivery (including further amalgamation and shared services), with children's needs as the focal point.

RESPONSE FROM CHILDREN'S AID SOCIETIES AND THE OACAS

Children's Aid Societies (Societies) and the Ontario Association of Children's Aid Societies (OACAS) agree with the Auditor General and are actively working on a number of initiatives to ensure funding for child protection services is used appropriately to provide direct services to children and families.

The OACAS is leading the sector work on a funding model review project to recommend changes to the funding model to more evenly distribute funding for protection services.

In addition, the OACAS and Societies across the province are embarking on a formalized shared services program to realize savings on back office activities (e.g., procurement), improve Society capacity in quality and service delivery, and free up existing child protection funding for reinvestment into direct client services.

Societies in the Northern zones are meeting to consider multiple sustainability options to improve service delivery, including jurisdictional boundary realignment, amalgamations and sharing of services. Other potential opportunities for reconfiguration of the child protection system may become apparent as the formalized Shared Services Program is implemented.

RECOMMENDATION 6

The board of directors of each Children's Aid Society should ensure that it oversees Society expenditures with sufficient care to ensure that funds are spent appropriately for child protection services.

RESPONSE FROM CHILDREN'S AID SOCIETIES AND THE OACAS

Children's Aid Societies (Societies) and the Ontario Association of Children's Aid Societies (OACAS) agree with the Auditor General. The OACAS is leading a number of initiatives intended to strengthen the governance capacity of local boards, including the development of Performance Indicators that measure the functioning and capacity of local boards of directors. In future sessions, the OACAS and Societies will focus on ensuring boards of directors of Societies are aware of the requirements of the *Broader Public Sector Accountability Act, 2010*, and information will continue to be shared about ensuring boards understand their fiduciary duties as governance bodies.

Appendix 1—Society Funding Allocations and Key Service Volumes, 2014/15

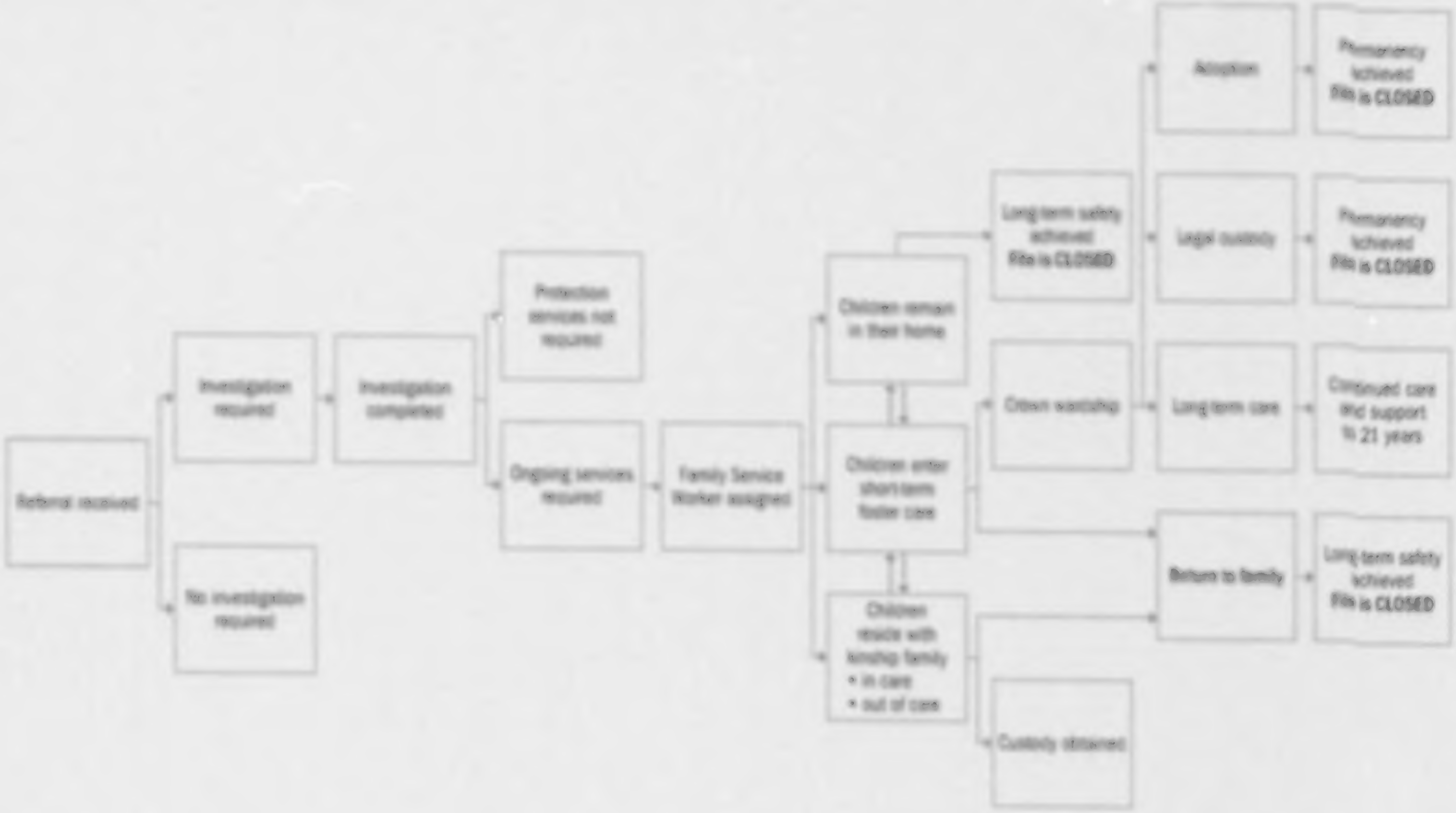
Source of data: Ministry of Children and Youth Services

Region	Children's Aid Society	2014/15 Funding Allocation ($)	2014/15 Key Service Volumes: Total # of Inquiries and Reports Received	Total # of Investigations Completed	Average # of Family Protection Cases	Average # of Children in Care	Total # of Adoptions Completed
Central	Dufferin Child and Family Services	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Halton Children's Aid Society	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	CAS of the Regional Municipality of Waterloo	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	CAS of the City of Guelph & the County of Wellington	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Children's Aid Society of the Region of Peel	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	The Children's Aid Society of the County of Simcoe	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Children and Family Services for York Region	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Central Region		**[illegible]**	**[illegible]**	**[illegible]**	**[illegible]**	**[illegible]**	**[illegible]**
Toronto	Jewish Family and Child Service of Greater Toronto	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Catholic Children's Aid Society of Toronto	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Native Child and Family Services of Toronto	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Children's Aid Society of Toronto	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Toronto Region		**[illegible]**	**[illegible]**	**[illegible]**	**[illegible]**	**[illegible]**	**[illegible]**
North	Dilico Anishinabek Family Care	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Weechi-it-te-win Family Services Inc.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Children's Aid Society of Algoma	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Kenora-Rainy River Districts Child and Family Services	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	The Children's Aid Society of the Districts of Sudbury and Manitoulin	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Anishinaabe Abinoojii Family Services	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	The Children's Aid Society of the District of Thunder Bay	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Tikinagan Child and Family Services Inc.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Payukotayno: James and Hudson Bay Family Services	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	North Eastern Ontario Family and Children's Services	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	The Children's Aid Society of the Districts of Nipissing and Parry Sound	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Family, Youth and Child Services of Muskoka	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Region	Children's Aid Society	[illegible] Funding Allocation ($)	Total # of Inquiries and Reports Received	Total # of Investigations Completed	Average # of Family Protection Cases	Average # of Children in Care	Total # of Adoptions Completed
Northern Region		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
West	Bruce Grey Child and Family Services	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	CAS of the City of St. Thomas and the County of Elgin	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Children's Aid Society of the City of Sarnia and the County of Lambton Inc.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	CAS of London and Middlesex	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Children's Aid Society of Oxford County	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Huron-Perth CAS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Windsor-Essex Children's Aid Society	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Chatham-Kent Integrated Children's Services	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	CAS of Brant	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	CCAS of Hamilton-Wentworth	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	CAS of Hamilton-Wentworth	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Family & Children's Services of Niagara	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	The Children's Aid Society of Haldimand-Norfolk	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Western Region		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
East	The Children's Aid Society of the Durham Region	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Kawartha-Haliburton Children's Aid Society	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Family & Children's Services of Renfrew County	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Children's Aid Society of Ottawa	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Valoris pour enfants et adultes de Prescott-Russell / Valoris for Children and Adults of P-R	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Children's Aid Society Stormont, Dundas, Glengarry	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Akwesasne Child and Family Services	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Family and Children's Services of Frontenac, Lennox and Addington	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Highland Shores Children's Aid Society	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Family and Children's Services of Lanark, Leeds and Grenville	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Eastern Region		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Province		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Appendix 2—General Pathway through the Child Protection System

Source of data: Children's Aid Society of Toronto


Referral received
Investigation required
No investigation required
Investigation completed
Protection services not required
Ongoing services required
Family Service Worker assigned
Children remain in their home
Children enter short-term foster care
Children reside with kinship family
• in care
• out of care
Long-term safety achieved File is CLOSED
Crown wardship
Custody obtained
Adoption
Legal custody
Long-term care
Return to family
Permanency achieved File is CLOSED
Permanency achieved File is CLOSED
Continued care and support to 21 years
Long-term safety achieved File is CLOSED

Appendix 3—Key Legislated and Ministry Protection Standards

Prepared by the Office of the Auditor General of Ontario

Area	Required Steps	Required Time Frame
Reports of children potentially in need of protection	Screen for the presence of domestic violence	At the time of receipt of report
	Conduct and document child welfare history checks:	
	• Internal Society records	Within 24 hours of receiving report
	• Provincial database	Within 24 hours of receiving report
	• Child Abuse Register (if report involves allegations of abuse)	Within 3 days of receiving report
	Document Society's initial assessment of report (whether a child protection investigation is required or not)	Within 24 hours of receiving report
Child protection investigations	Develop an Investigation Plan	Prior to start of investigation
	Begin child protection investigation (response time depends on the level of urgency or assessed level of threat to child's safety)	Within 12 hours, 24 hours or 7 days of receiving report (also referred to as "response time")
	Conduct Safety Assessment to determine if **immediate** safety threats are present	At point of first face-to-face contact within the response time
	Conduct Risk Assessment to assess **future** risk of maltreatment	Prior to concluding investigation
	Conclude child protection investigation	Within 1 month of receiving report (can be extended up to 2 months from the date of report, with supervisor approval)
Case management: Children remaining with their families	Conduct Child and Family Strengths and Needs Assessment	Prior to development of Service Plan
	Develop Service Plan (see Glossary of Terms for description)	Within one month of end of investigation
	Conduct formal case review, including: • Risk Re-assessment • Child and Family Strengths and Needs Re-assessment • Service Plan Review	Every 6 months following the date of the development of the initial Service Plan
	Conduct home visits with family and child (child is interviewed privately at home or in another setting, while children who cannot verbally communicate are directly observed at home)	At least once per month while the family and child are receiving services

Area	Required Steps	Required Time Frame
Case management: Children in Society care	Conduct private visits with the child	Within 7 days and 30 days of placement, and every 90 days thereafter until the child is discharged from care
	Develop Plan of Care (see Glossary of Terms for description)	Within 30 days of placement
	Review Plan of Care	Within 3 months and 6 months of placement, and every 6 months thereafter until the child is discharged from care
Continued Care and Supports for Youth (CCSY)	Society enters into an agreement with the youth (referred to as the CCSY agreement—valid for 12 months)	No time frame specified
	Society worker and youth develop Youth Plan	Within 30 days of the CCSY agreement being signed
	Society worker and youth review Youth Plan to discuss the youth's progress toward his/her goals (either in person or by other means)	At least once every 3 months
	Society worker and youth update Youth Plan	At least once every 12 months

Note: This list is not exhaustive and includes only key mandatory activities and related time frames for completion.

Appendix 4—Glossary of Terms

Prepared by the Office of the Auditor General of Ontario

Children-in-care case—A case where the child has been determined to be in need of protection and has been admitted into the care of a Children's Aid Society. The child may be placed with relatives or in a foster home or group home.

Crown ward—A child who has been permanently removed from his or her parent(s) or caregiver(s), and placed in the care and custody of a Society until the child turns 18 years of age or marries, whichever comes first.

Family protection cases—Cases where the child has been determined to be in need of protection. These cases include cases where the child and family receive supports and services from the Society while the child remains at home with the family.

Foster care—The temporary placement of a child or youth in the home of someone who is not the child's parent and who receives compensation for caring for the child. The foster parents provide day-to-day care for the child on behalf of a Society.

Group care—The placement of a child or youth in a home with unrelated children and youth who are cared for by staff.

Plan of Care—A plan that tracks the child's progress in various developmental areas based on the child's particular needs. (Applies only to children-in-care cases.)

Protection standards—Activities and related documentation that must be completed by Society caseworkers within specific time frames. Such activities are required under legislation or related regulations, or ministry policies.

Service Plan—An action plan that guides the child's family, Society worker and other service providers toward goals and outcomes against which progress can be measured over time. (Applies only to family protection cases where the child remains at home with his or her family.)

Society ward—A child who has been placed in the care of a Society on a temporary basis for up to 12 months (if the child is less than 6 years of age), or 24 months (if the child is 6 years of age or older).

Chapter 3

Section

3.03 Child Protection Services Program—Ministry

Ministry of Children and Youth Services

1.0 Background

1.1 Overview

Child protection services are intended to help children and youth who have been, or are at risk of being, abused or neglected grow up in safer, more stable, caring environments. In Ontario, child protection services are governed by the *Child and Family Services Act* (Act). The purpose of the Act is to promote the best interests, protection and well-being of children. The Ministry of Children and Youth Services (Ministry) administers the Child Protection Services Program through which child protection services are provided, and the Minister has designated 47 local not-for-profit Children's Aid Societies (Societies) located throughout Ontario to directly deliver child protection services. These Societies are each governed by an independent volunteer board of directors and are mandated to perform the following functions:

- investigate allegations and/or evidence that children under the age of 16 or in the Society's care or under its supervision may be in need of protection;
- protect, where necessary, children who are under the age of 16 or are in the Society's care or under its supervision, by providing the required assistance, care and supervision in either residential (e.g., foster home or group home) or non-residential (family home) settings;
- work with families to provide guidance, counselling and other services where children have suffered from abuse or neglect, or are otherwise at risk; and
- facilitate adoptions for Crown wards or children relinquished to Societies for adoption on consent by parents.

Unlike most other ministry programs, where the provision of services is subject to availability of funding, under legislation the Child Protection Services Program requires each Society to provide all the mandatory services to all identified eligible children. In other words, waiting lists are not an option for Child Protection Services. Ministry transfer payments to Societies to fund their expenditures were $1.47 billion in the 2014/15 fiscal year.

Figure 1 identifies the funding provided to Societies over the last five years and gives a breakdown of protection services the Societies provided, including the number of children in the care of Societies, which has declined by more than 10% over the last five years. Our VFM audit in **Section 3.02** of this Annual Report details the roles and responsibilities of Societies in delivering child protection services.

Figure 1: Ministry Funding Provided to Societies and the Protection Services They Provided, 2010/11–2014/15

Source of data: Ministry of Children and Youth Services

	2010/11	2011/12	2012/13	2013/14	2014/15
Transfer Payments					
Amounts paid to Societies ($ million)[1]	1,451	1,492	1,501	1,512	1,470
Key Service Volumes					
Total number of inquiries and reports	168,833	170,308	166,137	158,882	162,600
Total number of investigations completed	84,548	85,526	84,540	81,393	81,771
Average number of family protection cases[2]	26,682	27,386	28,236	27,829	26,932
Average number of children in care[3]	17,868	17,697	17,273	16,434	15,625
Total number of adoptions completed	979	838	837	974	862

1. Amounts paid to Societies include funding for other Ministry priorities including one-time funding to Societies for their historical debts, and one-time funding to support amalgamations.
2. Family protection cases are cases where the child has been determined to be in need of protection. These include cases where the child and family receive supports and services from the Society while the child remains at home with the family.
3. Children in care are children who have been determined to be in need of protection and have been admitted into the care of a Children's Aid Society. The children may be placed with relatives or in a foster home or group home. This includes Crown wards (children who have been permanently removed from their parents or guardians). Crown wards numbered 8,605 in 2010/11 and 6,373 in 2014/15.

The Ministry administers the Child Protection Services Program under the requirements of the Act. The Ministry's functions in the administration of the Program include:

- setting overall strategic direction, legislative and policy framework, and standards for service quality and delivery;
- monitoring Societies' delivery of child protection services based on applicable legislation, regulations, policies, expectations and resource allocations;
- monitoring performance and outcomes against expectations; and
- determining the funding policy, and allocating resources according to the funding policy and program resources.

1.2 Funding Provided to Societies

Until 2012/13, transfer payments to Societies were allocated based on historical spending and activity levels of individual Societies, with some adjustments for changes in the volume of services provided. In 2013/14, in an attempt to address the recommendations of the former Commission to Promote Sustainable Child Welfare (a commission established by the Ministry in 2009 to examine and recommend changes to the child protection services sector), the Ministry implemented a new funding model aimed at funding Societies based on their relative need instead of historical spending. Under the new model, funding to Societies is allocated based on a 50/50 split between five socio-economic factors pertaining to the area where the Society operates, and four volume-based factors pertaining to its cases. **Figure 2** outlines the socio-economic and volume-based factors along with their weighted percentage used to determine funding. In addition to this funding, Societies also receive additional funding for policy priorities such as the Continued Care and Support for Youth program that helps youth aged 18 to 20 transition to adulthood and independent living, and for specific expenses related to infrastructure, administration, travel and technology.

Along with the new funding model, Societies are now also required by legislation not to exceed their fixed allocation for each fiscal year. Funding allocations are provided to Societies (a significant portion of which is in accordance with their service volumes) for the current year, as well as two years of planning allocations to manage their expenses. By matching

Figure 2: Factors Used in the Ministry's Funding Model

Source of data: Ministry of Children and Youth Services

Socio-economic Factors[1]	%
Child population (0–15 years)	15.0
Low-income families	15.0
Lone-parent families	15.0
Remoteness	2.5
Aboriginal child population (0–15 years)	2.5
Total	**50.0**

Volume-based Factors[2]	%
Number of investigations completed	5.0
Average number of open protection cases	20.0
Average number of children in care	20.0
Children moving to permanency[3]	5.0
Total	**50.0**

1. Pertain to the geographical area where the Society operates.
2. Pertain to the Society's caseload.
3. Permanency refers to safe placement in a long-term family situation.

the allocations to service volumes, the Ministry attempts to help reconcile the Societies' legislated requirement to provide all the mandatory services to all identified eligible children with the requirement that they cannot exceed the allocation provided.

To help maintain stability during the transition to the new funding model, increases and decreases in funding resulting from the new model are being capped at +/– 2% per year, to a maximum of +/– 10% over five years, for each Society. As well, the Ministry plans to conduct a formal review of the funding model before the end of the five year implementation period in 2017/18 to determine its appropriateness and make any adjustments where necessary.

1.3 Monitoring the Delivery of Child Protection Services

The Ministry uses a number of processes to monitor the delivery of child protection services, including the following reviews, inspections and reports:

1.3.1 Annual Review of Crown Ward Files

When a court order designates a child as a Crown ward, the child is permanently removed from his or her parents or guardians and is placed in the care of a particular Society that assumes responsibility for the child. The Society can place the Crown ward with his or her next of kin, with a foster parent or in a group home. In the 2014/15 fiscal year, there were about 6,400 Crown wards in Ontario.

The Act requires the Ministry to annually review the status of every child who has been a Crown ward for the previous 24 months and whose status has not been reviewed by the court in that year, and report the results of these reviews to the appropriate Society. The review assesses compliance with legislation, regulations and Ministry policies, and ensures that the placement, needed services, and educational and social needs of a Crown ward are identified and appropriately addressed. Each review consists of a review of the Society's files on the Crown ward, a questionnaire completed by the Crown ward, and an interview with the Crown ward if the ward requests one. In 2014, the Ministry conducted 3,556 Crown ward reviews.

1.3.2 Licensing and Annual Inspections of Children's Residences

The Ministry is responsible for annually inspecting and licensing children's residences, including group homes, and foster care agencies. The licensing and inspection process is a means of assessing whether or not a basic level of care and safety will be provided in a children's residence where a Society places children in its care. The Act, its accompanying regulations and ministry policies outline the minimum level of care that must be provided in a residence.

1.3.3 Child Death Reporting

Societies must file a case report on all deaths of children who were receiving services, or had received services from a Society within 12 months of their death. The case report is to be prepared within 14 days of a child's death or learning of the child's death and provided to the Ministry and to the Chair of the Paediatric Death Review Committee (Review Committee) of the Office of the Chief Coroner.

If, after reviewing the case report, the Review Committee deems that an internal review is necessary, the Society must establish a review team that includes an external reviewer with appropriate clinical expertise to conduct a full Internal Child Death Review (Death Review) within 90 days of the Review Committee's decision. If the Death Review includes recommendations for further action or follow-up, the Society must submit progress reports every six months to the Ministry until the recommendations have been implemented.

Based on the Society's Death Review, the Chief Coroner will determine whether the Review Committee will undertake a further review, to be completed within one year of the child's death. The related Society must consider the Review Committee report, implement the recommendations as appropriate, and incorporate them in its progress reports to the Ministry. The Ministry is responsible for monitoring Society implementation of recommendations in Death Reviews and Review Committee reports, and following up with Societies on outstanding recommendations. The Ministry is also responsible for responding to recommendations addressed directly to the Ministry by the Review Committee.

1.4 Performance Measurement and Reporting

The Ministry is responsible for monitoring the effectiveness of the Child Protection Services Program. Before the end of the 2014/15 fiscal year, the Ministry had one publicly reported performance indicator, which was related to the number of completed adoptions. The Ministry recently established five new performance indicators designed to better monitor the effectiveness of the program that were reported publicly at the end of the 2014/15 fiscal year (see **Appendix**).

1.5 The Child Protection Information Network System

In 2010, the Ministry began a multi-year initiative to develop and implement the Child Protection Information Network (CPIN)—a single province-wide information system to be used by all Societies and the Ministry. CPIN is an integrated system built on four commercial off-the-shelf software applications for case management, financial management, document management and reporting.

At the time this initiative began, Societies used different and independent information systems to document child protection case information and financial information. These systems, which most Societies are still using, are not capable of sharing case information electronically and do not collect sufficient comparative data on services and their costs. Through CPIN, the Ministry aims to enable timely sharing of critical child protection information among Societies, simplify administrative processes, and facilitate oversight through more timely, accurate and comparable service and expenditure data.

The Ministry received Cabinet approval and planned to implement CPIN in two stages over a five-year period from 2010/11 to 2014/15. Stage 1 originally involved an initial deployment to 14 early adopter Societies over three years beginning in 2010/11. The early adopters would include representative Societies using the various legacy systems. Stage 2, which was originally scheduled to begin in April 2013, was meant to deploy the system to all remaining Societies by March 2015.

2.0 Audit Objective and Scope

The objective of our audit of the Ministry of Children and Youth Services (Ministry) was to assess whether the Ministry has effective policies and procedures for ensuring that children in need of protection receive the appropriate service in accordance with legislation, policy and program requirements; and whether funding provided to Children's Aid Societies (Societies) is commensurate with the value of the services provided.

Prior to commencing our work, we identified the audit criteria we would use to address our audit objectives. These were reviewed and agreed to by senior management at the Ministry. Most of our audit work was conducted between November 2014 and June 2015.

The scope of our audit included a review and analysis of relevant files and administrative procedures, as well as interviews with appropriate staff at the Ministry's head office, and offices in three of the Ministry's five regions (Toronto, East and West). We also surveyed all Ontario Children's Aid Societies, and received responses from most of them, on the new funding model, and we surveyed the 14 Societies that were expected to be early adopters to the Child Protection Information Network.

In addition, we met with senior staff at the Ontario Association of Children's Aid Societies, which represents 44 of the 47 Societies in Ontario, to gain a better understanding of their responsibilities and the issues in the child protection services sector. We also met with the Provincial Advocate for Children and Youth and with the Chief Coroner of Ontario to obtain their perspectives on the province's child protection services and related challenges.

We also reviewed reports prepared by the former Commission to Promote Sustainable Child Welfare, a commission established by the Ministry in 2009 to examine and recommend changes to the child protection services sector. We additionally contacted the offices of the Provincial Auditor of Saskatchewan and the Auditor General of Alberta to discuss information systems used in the delivery of social services in their provinces.

Our observations concerning the Societies' delivery of child protection services are presented in detail in our VFM audit in **Section 3.02** of this Annual Report.

3.0 Summary

Ontarians expect an effective system of child protection services that ensures children and their families receive the care and supports they require. Thus, it is critical that the Ministry has appropriate oversight processes in place to help Societies meet their mandated requirements, enabling children in need of protection and their families to receive suitable and timely protection services.

Since our last audit in 2006, the Ministry has worked towards improving the Child Protection Services Program (Program). For example, the Ministry has introduced a funding model that is intended to better distribute funding to Societies based on their needs, and it has introduced performance indicators for which it has started to collect data to help it monitor the effectiveness of the Program in the future.

Nevertheless, we found that the Ministry lacks sufficient information on the quality of care provided to the vast majority of children in receipt of child protection services to enable it to provide effective oversight of Societies.

Also, the Ministry needs to better ensure that the pressures Societies are facing with the introduction of the new funding model—including its fixed allocation that Societies cannot exceed—and problems associated with implementing the Child Protection Information Network system are not adversely affecting the Societies' ability to deliver effective child protection services. The Ministry also needs to further assess and take action on the data that shows that young people who have received protection services face significant challenges when transitioning to independent living.

The following are some of our key concerns with the Ministry's administration of the Child Protection Services Program:

- **The outcomes of children who have received protection services highlight the need for the Ministry to better monitor the Child Protection Services Program**—Many children who have previously received protection services continue to require additional protection services, and young people in Society care face significant challenges transitioning to independent living. Specifically:
  - a survey by the Ontario Association of Children's Aid Societies identified that in 2013 just 46% of youth in Societies' care attained an Ontario Secondary School Diploma, compared to the Ontario average of 83%;
  - the Provincial Advocate for Children and Youth has identified that an estimated 43% of homeless youth have previous child protection services involvement, and that youth leaving the care of Societies are over-represented in youth justice, mental health and shelter systems; and
  - one of the Ministry's new performance indicators identified that protection concerns recurred in about 20% of closed child protection services cases.
- **Ministry does not have sufficient information to monitor the performance of the Child Protection Services Program**—Although the Ministry recently established five new performance indicators, we found that the Ministry has yet to establish targets to measure progress against these indicators. In addition, the Ministry could not perform meaningful comparisons or analysis, or appropriately follow up where necessary at individual Societies, as data associated with the new indicators was collected in aggregate instead of from each Society, and was not collected from all Societies.
- **Ministry's oversight of non-Crown wards receiving protection services is limited**—Although the Ministry reviews the files of all eligible Crown wards annually for compliance with requirements and to assess whether their needs are identified and appropriately addressed, it no longer reviews the files of non-Crown wards. The Ministry discontinued such reviews over 10 years ago in 2003, even though when it had performed such reviews they identified numerous instances of Societies not complying with legislated and ministry program requirements.
- **Crown ward reviews are identifying recurring operational concerns at Societies from one year to the next**—We found that in over 40% of the ministry Crown ward files we examined, some non-compliance issues recurred from one year to the next. Such non-compliance issues included, for example, failing to develop a plan of care that identifies the child's strengths, needs and goals and that is appropriately updated to reflect the child's progress, and failing to have the child receive annual medical and dental examinations.
- **Ministry licensing inspections of children's residences found repeated concerns that were not addressed, potentially affecting children's safety**—In about 40% of the inspections of group homes and foster care operators we reviewed, some non-compliance issues recurred repeatedly from one year to the next. As well, in nearly two-thirds of inspections we reviewed, some non-compliance issues identified by the Ministry were not reported to the licensee and therefore were not addressed. Such non-compliance issues included foster parents and group home staff who were not aware of reporting requirements and procedures for serious occurrences, and group homes that were unable to demonstrate that annual medical exams for children were being completed as required.

- **Ministry's new funding model still does not provide funding to Societies based on service needs**—Although the Ministry introduced a new funding model in 2013/14 that was intended to fund Societies based on relative need, we found that the new model does not appropriately allocate funding as intended, potentially putting Societies under operational pressures and compromising their ability to provide the necessary and appropriate protection services to children. Specifically:
  - The weights assigned to socio-economic and case-volume-based inputs used to determine Society funding allocations were based on "judgment" rather than supportable analysis. In some cases the new model determined year-over-year increases that were as large as $31 million (or 50% more than a Society's prior year funding) and decreases as large as $9 million (or 20% less than a Society's prior year funding).
  - While the Ministry capped each Society's funding increases and decreases at 2% per year, almost half the Societies experienced a funding reduction in 2013/14 relative to the actual funding they had received in 2012/13. Consequently, the reduction in funding experienced by many Societies, combined with the requirement to balance their budget, required Societies to undertake cost-cutting initiatives that included reductions in management, support and front-line staff, as well as the elimination of some special programs used to help children receiving protection.
- **Ministry's Child Protection Information Network (CPIN) system is not currently delivering on its promised benefits despite significant investments in time and money**—We found that poor project planning and management by the Ministry has resulted in significant cost overruns, delays in development and implementation, and a system that is not delivering on its promised benefits. Specifically:
  - Although the Ministry's 2010 Cabinet-approved implementation plan expected to have CPIN in use by all Societies by the end of the 2014/15 fiscal year at a total cost of $150 million, as of the end of 2014/15, CPIN has been deployed in just five of the province's 47 Societies. The Ministry's revised plan hopes to have CPIN deployed to the remaining Societies by the end of the 2019/20 fiscal year at an estimated total cost of $200 million.
  - The Ministry developed the original implementation plan without consulting key stakeholders such as the users of the previous systems to understand Society user needs. As well, it did not fully understand the functionality of existing legacy systems that were in use from which data had to be transferred to CPIN, and the resources needed for implementation.
  - Although the Ministry had provided 14 early adopter Societies with about $2.8 million in additional funding to help support CPIN implementation, the early adopters indicated they had incurred significantly higher costs, totalling about $18.7 million, which were funded through the Societies' own operating funds and may have impacted funds available for providing child protection services.
  - All five Societies that initially implemented it indicated that as they transitioned to CPIN, due to numerous functionality limitations, they had to revert to using their legacy systems to perform some functions, and had to implement numerous workarounds to ensure that their ability to deliver protection services within legislative requirements was not compromised.

This report contains nine recommendations, consisting of 12 actions, to address the findings noted during this audit.

OVERALL MINISTRY RESPONSE

The Ministry of Children and Youth Services appreciates the work of the Auditor General and welcomes input on how it can further improve child protection services in Ontario. These recommendations will help inform the Ministry's continued pursuit of improved outcomes for children and youth involved with the child welfare system to help them reach their full potential.

In 2012, the former Commission to Promote Sustainable Child Welfare released its final report that included recommendations to help modernize and sustain Ontario's child protection services. Since that time, the Ministry has worked in collaboration with Children's Aid Societies (Societies), sector associations, child welfare practitioners, youth, Aboriginal partners and others to implement a number of the Commission's recommendations and other significant system changes, including the development of a new funding model and the introduction of a new approach to accountability for Societies.

Although the Ministry has made significant progress over the last five years, it recognizes that further work is needed to continue to improve effectiveness, oversight and accountability with respect to Ontario's child protection services. To that end, the Ministry is taking the following steps:

- exploring potential amendments to the Act, including improving oversight and accountability, in response to feedback received through the 2015 Review of the Act;
- implementing a Performance Management Strategy to guide how the Ministry and Societies learn from, and respond to, performance data and information in order to facilitate continuous quality improvement, learning and accountability;
- working with Societies to further refine performance indicators (PIs), build sector capacity to collect and use PI data and publicly report Society-level PI data in 2016;
- exploring additional opportunities to support youth through the Continued Care and Support for Youth (CCSY) program, as part of the Ministry's ongoing work to establish outcome measures for the program;
- established a panel of experts that is undertaking a review of child and youth residential services and will provide the Ministry with a report and recommendations on improving positive outcomes for children and youth;
- enhancing oversight and monitoring of business processes related to licensing and Crown ward reviews;
- continuing to work with Societies to implement CPIN across Ontario by 2019/20 and to identify, prioritize and resolve any functionality issues; and
- proceeding with a formal review of the Child Protection Funding Model by the end of the five-year implementation period (i.e., 2017/18) to further improve effectiveness, sustainability and value for money.

We appreciate the opportunity to respond to the Auditor General's recommendations for ongoing improvements made in this report. The Ministry is committed to continuing the ongoing transformation of the child protection system to improve outcomes for children and youth receiving child protection services.

4.0 Detailed Audit Observations

4.1 Ministry Does Not Have Sufficient Information to Monitor the Performance of the Child Protection Services Program

The Ministry does not have sufficient information to monitor and assess the performance of the Child Protection Services Program as a whole, or the performance of individual Societies in their delivery of child protection services. We found that before the end of the 2014/15 fiscal year, in an attempt to improve its monitoring of Society performance, the Ministry established five new performance indicators for which it is collecting and reporting on results. However, the data collected for these indicators is not sufficient to adequately monitor and assess the performance of the Child Protection Services Program, since not all Societies are tracking and reporting on them. (See the **Appendix** for a listing and description of all 26 planned performance indicators, including the five new performance indicators and the number of Societies that reported on them.) In addition, even though the Ministry has established these performance indicators, we found that it has yet to establish targets to measure performance against them.

4.1.1 Data on New Performance Indicators Is Incomplete and Reported in Aggregate Instead of by Each Society

While the Ministry published data on its five new performance indicators at the end of the 2014/15 fiscal year, as shown in the **Appendix**, it was not complete since not all Societies provided data on these indicators. Also, because the Ministry collected data on these performance indicators in aggregate through a third party instead of from each individual Society, it could not perform any meaningful Society comparisons or analysis, or appropriately follow up where necessary at individual Societies.

4.1.2 Societies May Not Be Able to Provide Data on Other Indicators That the Ministry Is Planning to Implement

We were advised that the newly implemented performance indicators represent just five of 26 performance indicators the Ministry plans to have in place by the end of the 2016/17 fiscal year to measure and assess the performance of the Child Protection Services Program. As the **Appendix** shows, these include performance indicators focused on measuring service, including outcomes related to safety, permanency (safe placement in a permanent family situation) and well-being; and others focused on assessing organizational capacity and governance.

According to the Ontario Association of Children's Aid Societies (OACAS), many Societies face significant issues with extracting data to report on performance indicators. These issues include technical limitations such as data that was never entered into existing Society case management systems and data that is available but difficult to extract because it is in a text field. As well, more time and expertise are needed to map and test the data from some existing Society systems to enable reporting on performance measures, and Societies have not always been able to assign staff to the performance indicators initiative due to competing priorities. As noted earlier, many Societies have not yet reported on the existing five indicators. Therefore, we question the Ministry's ability to effectively collect and analyze data on these additional indicators from each Society by the end of the 2016/17 fiscal year, as intended.

4.1.3 The Outcomes of Children Who Have Received Protection Services Highlight the Need for the Ministry to Better Monitor the Child Protection Services Program

There are many signs that point to the Ministry's need to better analyze and assess Societies' performance and the reasons for the outcomes obtained from the Child Protection Services Program. Based on available information, we noted that many young people struggle after receiving protection services. In particular:

- OACAS conducted three surveys in 2007, 2010 and 2013 on the high school completion rate for youth in Societies' care in which most Societies participated. Although the survey noted that comparisons to the provincial average should be taken with caution due to differences in how results are calculated, the survey found that these youth have less than 50% chance of completing their Ontario Secondary School Diploma: 42%, 46% and 46% for the three years surveyed, compared to the provincial average of 83% in 2013. OACAS however noted that the youth who do remain in the care of Societies are often those who have very complex needs and/or significant limitations, which means that high school graduation or post-secondary admission is much harder to achieve. Nonetheless, once the findings of the surveys were shared with Society staff across the province, many expressed disappointment in the results.

- One of the Ministry's new performance indicators identified that protection concerns recurred in 18–20% of cases closed between 2010/11 and 2012/13 where protection services had been provided. This is based on data reported by only 26 Societies.
- The Provincial Advocate for Children and Youth identified the following:
  - an estimated 43% of homeless youth have previous child protection involvement, and 68% have come from foster homes, group homes and/or a youth centre; and
  - numerous reports going back to the mid-1980s recognize that youth leaving care are over-represented in the youth justice, mental health and shelter systems.

In addition, our VFM audit in **Section 3.02** of this Annual Report identified that in more than half of the reopened child protection cases and cases of children readmitted into the care of Societies that we reviewed, the circumstances and factors that resulted in the subsequent report to the Society or readmission of a child into the Society's care had been present when the case was previously closed or when the child was discharged from the Society's care. As well, our VFM audit in **Section 3.02** identified that in almost half of the Continued Care and Supports for Youth program cases we reviewed, it was not evident that youth had made reasonable efforts to prepare for the transition to adulthood as intended by the program.

RECOMMENDATION 1

To appropriately monitor and assess the performance of the Child Protection Services Program and the Children's Aid Societies that deliver child protection services, the Ministry of Children and Youth Services should:

- assess the proposed performance indicators it intends to roll out to ensure they target the necessary areas that will adequately evaluate the current and long-term outcomes of the Child Protection Services Program and of children receiving protection;
- collect data from each Society on each of the confirmed performance indicators, and analyze this data to identify trends that require follow-up and/or corrective action both program-wide and at an individual Society; and
- analyze the outcomes of children who received protection services to identify opportunities to improve protection services and ultimately the future of these children.

MINISTRY RESPONSE

The Ministry appreciated the support for this critical area of work and agrees with the Auditor General that the monitoring and assessing of the performance of Children's Aid Societies is important. As such, the five performance indicators (PIs) already introduced by the Ministry, in addition to the 21 the Ministry plans to implement, are based on the set of PIs developed by the former Commission to Promote Sustainable Child Welfare, in consultation with the child protection sector. The indicators:

- reflect immediate (e.g., child safety) and intermediate outcomes (e.g., permanency, well-being such as educational outcomes that measure age-to-grade performance)

that relate directly to the mandate of children's aid societies (Societies), as well as organizational and governance capacity; and
- recognize the practicalities of tracking longer-term outcomes for individual children and youth.

Following the current cycle of data collection and reporting on the 26 PIs, the Ministry will consider these indicators to determine which, if any, can be adjusted to better evaluate long-term outcomes of the Child Protection Services Program.

The Ministry will continue to support Societies and build sector capacity to collect, understand and report PI data. In addition, the Ministry will work to support the full implementation and maturation of a data collection process that provides a comprehensive set of PIs to better understand the outcomes of children and youth. One of the Ministry's goals for the collection and public reporting of PIs is to increase transparency and accountability of Societies and promote an evidence-based approach to ongoing quality improvement. Once a comprehensive set of PIs is available, it will be used to support improved service delivery at the Society level and system-wide improvements at the provincial level.

The Ministry is collecting validated Society-level PIs directly from Societies over October/November 2015 for three fiscal years (2010/11 to 2012/13) and will publicly report Society-level PIs in 2016. In the coming years, the Ministry will continue to collect data and report publicly on a growing number of PIs that will strengthen the Ministry and the sector as well as advance public knowledge of how well children are being served and what their outcomes are.

4.2 Children 16 to 17 Years of Age Who Feel Unsafe Are Not Able to Access Protection Services

The *Child and Family Services Act*, under which child protection services are governed in Ontario, does not extend to children older than 15 years of age. We found that while several Canadian provinces provide protection services up to the age of 18, children in Ontario aged 16 and 17 who feel unsafe in their family living situations are not able to access child protection services.

In 2011 the Government of Ontario made it possible for 16 and 17 year olds who had been in the care of Societies and had their care terminated at age 16 or 17, to resume receiving service. However, those children who have not already been in the care of a Society cannot access protection or support services after they turn 16 (nor can children who were in Society care and had their service terminated prior to age 16).

The Ontario Association of Children's Aid Societies is requesting that the Ministry enact legislative, regulatory and/or policy changes to offer protection services to children up to the age of 18, and provide the required services.

We noted that the Ministry performed a review of the *Child and Family Services Act* (Act) in 2015 that included a variety of stakeholders such as children, youth, families and service providers in Ontario. The 2015 review of the Act focused on two areas: improving outcomes for children and youth, and modernizing and clarifying the language in the Act. One area of focus was on supporting older youth who are in need of protection. There was broad agreement among participants in this review that it is "essential" that the age of protection be raised from 16 to 18 years of age. In addition, participants suggested that changing the age of protection would bring Ontario into alignment with some other Canadian provinces.

The Ministry noted that recommendations made in this review, including changing the age of protection will be explored in greater depth prior to any legislative changes scheduled in the future.

RECOMMENDATION 2

The Ministry of Children and Youth Services should consider the feedback they are receiving for extending child protection services to all children under the age of 18 to ensure that all children have access to protection from abuse and neglect.

MINISTRY RESPONSE

One of the key themes of the recent 2015 review of the *Child and Family Services Act* (Act) is to improve outcomes for children and youth, which includes a specific focus on supporting older youth in need of protection. The Ministry of Children and Youth Services is developing policies and exploring potential updates to the Act and/or its regulations based on the findings of the review, and this work will include engagement with key stakeholders and youth.

4.3 Ministry's Oversight of Children Receiving Protection Services Is Limited

The Ministry is mandated by legislation to conduct annual reviews of the status of only Crown wards (children in the care of Societies where parental rights have been terminated). It does not have processes in place to review the status of the remaining children who are receiving protection services from the Societies but are not Crown wards. This is especially concerning because non-Crown wards vastly outnumber Crown wards. For example, in 2014/15 the Ministry conducted over 3,500 Crown ward reviews, compared to Societies handling about 27,000 family protection cases that include children living with their families. In addition, when the Ministry reviews the status of Crown wards and finds non-compliance with its requirements, it is not ministry practice to request documentation from a Society to verify that its compliance directives have been addressed.

4.3.1 Ministry Has Yet to Replace a Review Process Discontinued Over 10 Years Ago for Non-Crown Wards

In response to findings in our 2006 audit of the Ministry's Child Welfare Services Program, the Ministry responded that it would re-establish its periodic file reviews of non-Crown wards. These reviews were discontinued as of 2003, even though in its previous reviews the Ministry had identified numerous instances of Societies not complying with legislated and ministry program requirements. For example, it was noted that child protection investigations and plans of service were not being completed on a timely basis.

In the 2008 follow-up to our 2006 report, the Ministry informed us that it had developed a file review process that would include regular reviews of non-Crown ward files beginning in 2008. Such reviews would assess compliance with requirements and whether children were appropriately placed and adequately cared for. However, during our current audit we were advised that the Ministry did not implement those reviews (or another review process aimed at these children) and that it has been over 10 years since the Ministry has completed regular file reviews of non-Crown wards.

Conducting such reviews is particularly important in light of our current finding of numerous instances where Societies we visited did not comply with program requirements, such as meeting required time frames for completing Plans of Care tracking the progress of children in care (such as in foster and group homes), completing Service Plans that guide family and service provider goals for children residing with their families, and visiting both children in care and children residing with their families. (See our VFM audit in **Section 3.02** of this Annual Report.) Failing to meet program requirements increases the risk of a child receiving inappropriate care or being subject to neglect that goes unnoticed. We also observed that children may not always be appropriately protected, as we found instances where the Societies we visited may have prematurely closed child protection files or discharged children from their care while safety concerns were still present.

4.3.2 Crown Ward Reviews Identify Recurring Operational Concerns at Societies from One Year to the Next

If the Ministry's review of a Crown ward's status identifies that the documentation in the child's file does not indicate full compliance with ministry requirements, it must issue a directive to the Society to take action. The Society must comply within 60 days and advise the Ministry of its compliance. In less serious issues of non-compliance with ministry requirements, the Ministry is to issue a recommendation to the Society informing it that file documentation does not fully comply with ministry requirements. However, Societies are not required to act on these recommendations. The Ministry provides the Society with an individual report for each review as well as a summary report that provides an overview of strengths and areas requiring improvement.

It is not the Ministry's practice to request documentation from a Society to verify that directives issued to a Society for non-compliance are appropriately addressed. Instead, the Ministry simply requires the Society to provide written confirmation that the directives were appropriately addressed without any verification. Some of these directives and recommendations address significant issues that may have implications for the child's well-being—for example, Plans of Care that were not being reviewed on a timely basis and caseworkers who were not conducting visits within the required frequency—increasing the risk that the child will not receive the proper care and supports.

We found that in over 40% of the Ministry Crown ward review files we examined, some of the same directives and recommendations issued to a Society previously in 2013 for non-compliance with requirements were issued again in 2014. Some of the repeat non-compliance issues included, for example, failing to develop a plan of care that identifies the child's strengths, needs and goals that are appropriately updated to reflect the child's progress, and failing to have the child receive annual medical and dental examinations.

RECOMMENDATION 3

To better ensure that all children and youth in receipt of child protection services are safe and receive care that meets their needs and is in compliance with legislative and ministry program requirements, the Ministry of Children and Youth Services should review Children's Aid Societies' files for non-Crown wards in receipt of child protection services.

MINISTRY RESPONSE

The Ministry agrees with the Auditor General that all children and youth in receipt of protection services should receive services that meets their needs and is in compliance with legislative and Ministry program requirements.

In keeping with recommendations of the former Commission to Promote Sustainable Child Welfare, with the introduction of the new approach to accountability in 2013, the Ministry's focus includes compliance while shifting focus to the outcomes being achieved by children and youth receiving the services of Children's Aid Societies (Societies). The Ministry is in the process of implementing cyclical reviews, which will be conducted in all Societies and will assess whether they: have appropriate processes in place to monitor their compliance with legislative and program requirements, including for non-crown wards; and are carrying out internal reviews to monitor their compliance with legislative and program requirements. Should the cyclical review determine that the necessary processes/practices to monitor compliance are not in place, a recommendation would be issued to the Society and the Ministry will work with the Society through the Performance Improvement

Plan process to meet the requirements. Cyclical review tools have been piloted in two Societies and a plan to conduct cyclical reviews in Societies is under development, with the launch targeted by the end of the 2015/16 fiscal year.

RECOMMENDATION 4

In order for the Ministry of Children and Youth Services' review of Crown ward files to be effective in ensuring children are receiving protection services in accordance with legislation and ministry policies, the Ministry should put mechanisms in place to confirm that directives and recommendations issued to a Children's Aid Society as a result of non-compliance with legislative and program requirements are acted upon and corrected.

MINISTRY RESPONSE

The Ministry agrees with the Auditor General that further work is needed to strengthen processes to consistently address non-compliances identified in Crown ward reviews. The Ministry will review its current mechanisms that address non-compliance with legislative and program requirements found in Crown ward files. To facilitate appropriate oversight of non-compliance on an ongoing basis, the Ministry is working to implement a formal process to monitor the progress of Children's Aid Societies against Quality Improvement Plans and Crown ward review findings. The process will help determine and confirm that Societies act upon and correct any issued directive and recommendation as a result of non-compliance with a Crown ward file review.

4.4 Ministry Licensing Inspections of Children's Residences Found Repeated Concerns That Were Not Addressed, Potentially Affecting Children's Safety

We reviewed a sample of ministry licensing inspections of children's residences (group homes and foster care agencies) that assess whether or not a basic level of care and safety is being provided in a children's residence. We found that some non-compliance issues were repeatedly recurring year after year, and that non-compliance issues were identified but not brought to the attention of the licensee by ministry staff from their review and therefore were not addressed by the licensee.

4.4.1 Licensing Inspections Frequently Identify Recurring Non-compliance Issues from One Year to the Next

The Ministry conducts annual licensing inspections, using the licensing checklist supported by the Children's Residence Licensing Manual and the Foster Care Licensing Manual it has developed. These manuals specify the policies related to the number of files to be reviewed; the interviews to be conducted with children, staff and foster parents; and the procedures to be used when reviewing a licensee's policies and procedures.

We found that in about 40% of the licensing inspections we reviewed for the regions we visited, the Ministry identified non-compliance issues that were recurring from one year to the next. These included, for example, Plans of Care (tracking the child's developmental progress) that were not completed in the required time frame; foster parents not being aware of the reporting requirements for serious occurrences (such as a serious injury, alleged abuse or a missing child); and residences unable to demonstrate that annual medical exams were being completed as required.

At two of the three regions we visited, we also noted that it was not the practice of ministry staff to verify that corrective actions are taken to address instance of non-compliance that they identified. Rather, they relied on representations from the licensee that issues of non-compliance had been addressed, even though the Ministry had identified recurring issues at a licensee year after year. Although ministry staff at the third region we visited informed us that they do, in fact, verify that non-compliance issues are addressed, in every case we reviewed we found issues of non-compliance where there was no evidence that staff had verified that the issues had been resolved.

4.4.2 Some Issues of Non-compliance Were Not Reported to the Licensee and Therefore Not Addressed

In nearly two-thirds of the licensing inspections we reviewed, we found issues of non-compliance identified by the Ministry that were not brought to the attention of the licensee to address. These non-compliance issues included, for example, group home staff who were not aware of reporting procedures for serious occurrences, foster parents who did not receive health records necessary for the care of children, and foster parent files that did not contain the necessary references in support of their application.

RECOMMENDATION 5

To ensure that children in the care of Children's Aid Societies are placed with residential care providers (group homes and foster care agencies) that provide appropriate care to children, the Ministry of Children and Youth Services should ensure that all instances of non-compliance with requirements are documented, brought to the attention of residential care providers, and addressed by the residential care providers on a timely basis.

MINISTRY RESPONSE

The Ministry agrees with the Auditor General and is committed to supporting children and youth to reach their full potential. To deliver on this commitment, the Ministry has established a panel of experts that is undertaking a review of child and youth residential services and will provide the Ministry with a report and recommendations on improving positive outcomes for children and youth.

The Ministry has also undertaken a review of the *Child and Family Services Act* (Act) in 2015 that focused on two areas: improving outcomes for children and youth and modernizing and clarifying the language of the Act. A key focus of this review was residential services and licensing. The Ministry is exploring potential changes to the Act as a result of the review, including residential services and licensing.

In addition, the Ministry is continuing to work to improve current licensing processes and practices related to the documentation of licensing non-compliance issues and follow-up procedures with residential care providers, ensuring that they are addressing all instances of non-compliance on a timely basis.

The Ministry also continues to provide training to staff that addresses an array of topics, including the use of consistent tools, documentation, and follow-up business processes to ensure that residential care providers are informed and work to address all non-compliance issues identified.

4.5 Ministry Is Not Verifying That Children's Aid Societies Are Implementing Recommendations from Death Investigations

At the three ministry regions we visited, we reviewed a sample of child deaths where Societies were required to conduct an Internal Child Death Review (Death Review) and/or where a review was conducted by the Paediatric Death Review Committee, and corrective actions were recommended.

Although the Ministry notes that the majority of recommendations made by the Review Committee and in Death Reviews were implemented, we found that there was no documented evidence that regional office staff reviewed the appropriateness of corrective actions taken by Societies to address recommendations. Recommendations from Death Reviews and the Review Committee to Societies included: to ensure that previous child protection history is obtained and reviewed in a timely manner during the course of an investigation; to ensure Society staff are trained in safe sleeping practices for infants; and to develop a policy on drug assessment and testing, including the completion of unannounced home visits, where substance abuse is a concern.

RECOMMENDATION 6

To reduce the risk of recurrence of circumstances that may have contributed to the death of children who have received child protection services, the Ministry of Children and Youth Services should ensure that Children's Aid Societies implement all recommendations directed to them from child death reviews on a timely basis and obtain and review relevant progress reports on their implementation.

MINISTRY RESPONSE

The Ministry's highest priority is the safety and security of children in the province. We all have a role to play in supporting children and youth in need of protection. The Ministry is committed to continue working with the Office of the Chief Coroner and our partners in child protection to strengthen safeguards for children receiving protection services.

The Ministry will be reviewing its strategy on Child Death Reporting in order to strengthen current processes so that the Ministry can continue to monitor how Societies implement all recommendations directed to them on a timely basis. This may include:

- enhancing the requirements of the current child death management strategy;
- improving the internal child death reporting database;
- establishing a consistent system to track Paediatric Death Review Committee recommendations that have been implemented or are in progress; and
- establishing processes for generating regular reports and information for Ministry use in order to support evidence-based decision-making.

4.6 Ministry's New Funding Model Still Does Not Provide Funding to Societies Based on Service Needs

Although the Ministry introduced a new funding model in the 2013/14 fiscal year that is intended to allocate funding to Societies based on relative need, we found that the model still does not appropriately allocate funding as intended, potentially putting Societies under operational pressures and potentially compromising their ability to provide the necessary and appropriate protection services required of them under the Act.

4.6.1 Variables Used in the Funding Model Are Not Targeted to Society Needs

The majority of Ministry funding provided to Societies is allocated based on a 50/50 split between five socio-economic factors in the area where the Society operates, and four volume-based factors (as described in **Section 1.2** and in **Figure 2**). We found that the weights assigned to these factors, which significantly affect the funding each Society receives, were based on "judgment" rather than supportable analysis. The Ministry informed us that it primarily assigned weights with the aim of minimizing the impact of the new funding model on funding allocations to Societies, instead of basing them on supportable analysis to address Societies' needs.

We also surveyed all the Societies to obtain their perspective on the new funding model, and received responses from almost 90% of them. Although Societies acknowledged that the new model is an improvement over prior models, 80% of respondents expressed concerns that the factors, weights and data sources used to allocate funding to their Society were not reflective of their needs and the needs of the communities they serve. Specifically, we noted concerns from the survey relating to the following:

- *Accuracy of data used to calculate the Aboriginal portion of funding.* Approximately one-fifth of the respondents raised concerns that the tax filer and census data the Ministry uses to calculate the Aboriginal portion of the funding (Aboriginal child population 0–15 years; see **Figure 2**) may be vastly understated when it comes to First Nations populations, since some Aboriginal communities do not regularly report such information.
- *Appropriateness of basis for and weighting assigned to remoteness factor.* Over one-third of the respondents raised concerns that the Ministry's use of land mass (the geographic extent of the area served) as the basis for calculating the remoteness factor does not adequately capture the costs of delivering services in less dense, rural areas. In addition, respondents noted that the remoteness factor is given insufficient consideration in the funding model.
- *Omission of other key factors that affect demand for services.* Many of the respondents raised concerns that key factors that directly affect service demand, not just in their particular community but throughout the province, are not captured in the funding model. For example, the funding model considers only child populations aged 0–15 years in Societies' particular areas, but Societies provide protection services until the age of 18. Other factors identified by Societies that are not taken into consideration by the funding model include the occurrence of domestic violence, mental health issues and addictions, and the availability of services to address these issues; and the proportion of high-needs children and youth served by Societies.

4.6.2 Funding Determined by the Model Highlights Its Flaws

We found cases where funding allocations calculated for individual Societies under the new funding model differed vastly from Societies' prior-year funding. **Figure 3** provides examples of Societies whose funding was calculated by the new model to be significantly different than their previous year's funding. Societies' funding increases or cuts were not as significant as those identified in **Figure 3**,

Figure 3: Comparison of Society Funding Prior to the New Funding Model and Using the New Model

Source of data: Ministry of Children and Youth Services

Societies	Total Funding Received in 2012/13, Prior to New Model ($ million)	Funding Allocation per New Model in 2013/14, before Cap* ($ million)	Change Prior to Cap Increase/(Decrease)		Funding Allocation per New Model in 2013/14, after Cap ($ million)
			($ million)	(%)	
Society 1	16.9	28.0	11.1	66	17.2
Society 2	62.8	94.1	31.3	50	62.9
Society 3	45.2	67.5	22.3	49	44.1
Society 4	19.6	14.4	(5.2)	(27)	17.7
Society 5	45.8	36.7	(9.1)	(20)	45.8

* The Ministry capped funding increases and decreases resulting from the new funding model to +/- 2% of the prior year's funding allocation (to a maximum of 10% over five years).

however, because the Ministry limited increases and decreases to +/- 2% of the prior year's funding allocation (to a maximum of 10% over five years); in this way, it intended to maintain stability while transitioning to the new model. Nevertheless, these vast differences indicate that unless Societies were drastically historically underfunded or overfunded, there may be flaws in the new funding model. The Ministry acknowledges that the funding model is not perfect and will require some further changes.

4.6.3 Some Societies Experienced a Significant Funding Cut Resulting In Reduced Staff and Services, Potentially Compromising Their Ability to Deliver Child Protection Services

In the three years prior to the new funding model's implementation, over 80% of Societies required additional ministry year-end funding in at least one of the years to help meet their legislated mandate to provide child protection services. Although, as noted in **Section 4.6.2**, under the new model the Ministry capped each Society's funding increases and decreases at 2% per year (to a maximum of 10% over five years), the cap was based on the funding allocation prior to the introduction of the new model. This cap excluded the additional year-end funding provided to Societies over and above their approved allocations to cover expenses due to legislated service requirements. As a result, based on the comparison we made of actual funding that Societies received (allocation plus additional year-end funding) to funding they received after the introduction of the new model, we found that almost half of Societies experienced a funding reduction in 2013/14 relative to the actual funding they received in 2012/13. On average, we found that these Societies experienced a 4.5% funding reduction, including one Society that experienced a 9.5% funding reduction of $1.9 million.

As previously noted in **Section 1.2**, with the introduction of the new funding model in 2013/14, Societies were provided with a fixed funding allocation that they cannot exceed. Specifically, based on the results of our survey of Societies:

- Four in five respondents indicated they had to reduce staff—including one Society we visited that had reduced the number of its workers responsible for cases involving children in its care by 60%, from 22 caseworkers to nine in less than two years, while still providing protection services to roughly the same number of children (about 400 children in care). More than doubling the caseload of the remaining caseworkers increased the risk that children will not receive adequate supervision and regular visits required under legislation and the appropriate protection services.
- Almost one in five respondents indicated they had to discontinue programs over and above regular case management such as additional support for foster parents in managing children with challenging behaviour.

We also noted that several Societies raised concerns that although to date they have been able to deliver protection services, their ability to effectively deliver mandated services while operating within their allocation is questionable in the future. Nevertheless, we noted that the Ministry has not reviewed the impact of the steps taken by the Societies to meet the balanced budget requirement and, specifically, if these steps compromised their ability to meet their mandate.

RECOMMENDATION 7

In order to ensure that funding is commensurate with each Children's Aid Society's individual needs, the Ministry of Children and Youth Services should assess the impact that its current funding model has on the delivery of protection services and make the necessary changes to its funding model if service is being adversely affected.

MINISTRY RESPONSE

While the design of the funding model was informed by the extensive consultation and research conducted by the former Commission to Promote Sustainable Child Welfare, the implementation of the model was undertaken to maintain stability in the sector, given the mandated role of the Societies to protect children and youth. A formal review of the current funding model will commence in 2016/17 as the Ministry had committed when the new approach to funding was rolled-out in 2013/14. This review will include sector participation to assess the effectiveness of the model to enable Societies to fulfill their child protection mandate while allocating a finite amount of funding across individual Societies. The review will determine what, if any, changes are necessary to support these goals.

4.7 Potential for Society Amalgamation and Shared Services

In 2010, the former Commission to Promote Sustainable Child Welfare (Commission) identified that a number of smaller Societies should move toward amalgamating with a neighbouring Society to realize economies of scale, and to enhance quality, expertise and managerial capacity. In response, the Ministry encouraged these Societies to pursue amalgamation, and since that time 16 Societies have amalgamated into seven—including two Societies that amalgamated during our audit. Among other advantages, the Ministry's estimate of cost savings attributed to the amalgamations (excluding the most recent amalgamation) indicates that the Societies projected savings of about $6.6 million in 2013/14.

Although the Commission noted that there were many additional Societies that would benefit from amalgamation, it did not include these in its list of Societies that should undergo amalgamation, because they lacked a nearby Society to partner with. Nevertheless, the Commission highlighted that the sustainability of these Societies will continue to be a challenge, and other options should be explored. These include, for example, arrangements where a smaller Society could become a satellite office of a larger Society.

Another recommendation of the Commission was that a range of business functions currently performed separately by Societies should be implemented as shared services across all Societies. Some of the candidates for shared services include back-office functions, training and recruitment, promotion and publicity, and specialized assessments such as drug testing and psychological services. Based on our analysis of expenditure data provided by the Societies, expenditures related to the aforementioned services totalled approximately $196 million in 2014/15, comprising 13% of total expenditures. Although the Commission did not quantify potential savings from implementing shared service arrangements, one of the benefits it identified was the possibility for Societies to redirect resources from back-office functions and infrastructure and reinvest them in direct client services. The Ministry is currently working with the Ontario Association of Children's Aid Societies (OACAS) to determine the feasibility of shared services in the child protection sector.

RECOMMENDATION 8

To ensure that Children's Aid Societies provide quality child protection services cost-effectively, the Ministry of Children and Youth Services should work with Societies to further identify and implement opportunities for improving the efficiency of their service delivery (including further amalgamations and shared services), while keeping children's needs in the forefront.

MINISTRY RESPONSE

The Ministry agrees with the Auditor General and continues to work with Societies to identify opportunities to streamline services in order to become more efficient and effective. For example, the Ministry, in keeping with the recommendations of the former Commission to Promote Sustainable Child Welfare, supported the amalgamation of 16 Societies to seven between 2011 and 2015. The Ministry is open to supporting additional Society amalgamations where it would lead to improvements in services and the achievement of better outcomes for children and families.

In 2013, the Ministry of Government and Consumer Services (MGCS) provided funding to the Ontario Association of Children's Aid Societies to conduct a Planning and Business Case Development project on the feasibility of shared services in the child protection sector. The project's final report will be submitted to MGCS and the Ministry in December 2015 and opportunities for improving the efficiency of service delivery will be further examined in conjunction with this report.

4.8 Ministry's Child Protection Information Network System Is Not Currently Delivering on Its Promised Benefits Despite Significant Investments in Time and Money

Poor project planning and management by the Ministry on the Child Protection Information Network (CPIN) system has resulted in significant cost overruns, delays in its development and implementation, and therefore a system that is not delivering on its promised benefits.

4.8.1 CPIN Implementation Has Suffered Significant Cost Overruns and Delays Due to Poor Project Planning

As described in **Section 1.5**, the Ministry's initial 2010 Cabinet-approved implementation plan expected to have the Child Protection Information Network system in use by all Societies by the end of the 2014/15 fiscal year at a total cost of approximately $150 million. However, as of March 31, 2015, CPIN had been deployed in only five of the 47 Societies. The Ministry's revised implementation plan hopes to have CPIN deployed to the remaining Societies by the end of 2019/20 at a total estimated cost of $200 million, or $50 million in excess of the original estimate.

We found that the original implementation plan was developed internally within the Ministry without consulting key stakeholders such as the Societies and the vendors of the existing legacy systems, thereby resulting in unrealistic timelines for the new system's implementation. The limited Society consultation did not allow for meaningful discussions regarding user needs and availability of resources in the planning phase, which resulted in extensive discussions while the project was already under way. The Ministry also did not consult with users of the old legacy systems to obtain an understanding of the various systems from which data needed to be migrated to CPIN. Late engagement of legacy users was cited by an independent review as one of the factors contributing to the delays in data migration.

4.8.2 Societies Lack Necessary Human and Financial Resources to Support CPIN Implementation

In the 2010/11 fiscal year, all Societies were asked to complete a readiness assessment to help the Ministry determine each Society's organizational and technological capacity to implement CPIN. We reviewed the readiness assessments completed by all Societies and found that over half of the Societies did not have the resources to provide some key functions, including a CPIN project lead or a training lead. In addition, about 40% of Societies did not have the IT resources to support the overall implementation, and almost half the Societies did not have the resources to identify and resolve data-quality-related problems during migration to CPIN. The Ministry had not estimated the additional costs that Societies would need to incur to meet the implementation readiness requirements.

Our survey of the 14 early adopter Societies that were expected to implement CPIN by the end of the 2012/13 fiscal year noted that these Societies have made significant investments in human and financial resources in the past three years to prepare for CPIN implementation. Such investments include hiring additional staff, undergoing training activities and performing data-cleansing activities. Although the Ministry has provided up to $220,000 in funding to each early adopter, totalling approximately $2.8 million, to help support CPIN implementation, we found that the early adopters have actually incurred additional expenses totalling approximately $18.7 million from 2011/12 to 2014/15 (or the date that CPIN went live), or over six-and-a-half times the funding they received from the Ministry.

In addition, our survey of the five Societies that have currently implemented CPIN indicated that, since going live on CPIN (starting in June 2014), those Societies have spent an additional $5.4 million to manage workload pressures resulting from inefficiencies in CPIN, primarily on additional front-line staff and administrative and IT support. These additional costs are funded through the Societies' own operating funds, which may have further impacted protection services, as Societies were already experiencing the impacts from the funding model and balanced budget requirement described in **Section 4.6.3**.

4.8.3 Ministry Has Spent Three Times More but Received Data Migration Services for Only One-third of Societies Originally Contracted For

In October 2012, the Ministry tendered for and contracted with a vendor for data planning, management and migration services for the 14 early adopter Societies. The original contract term was for a nine-month period from October 1, 2012, to June 30, 2013, with a maximum contract value of almost $3 million.

From October 2012 to May 2015, the contract was amended 18 times to extend its term and its value. As described in **Section 4.6.1**, limited consultation with stakeholders in the initial stages of the CPIN project resulted in unrealistic implementation timelines, including the time and resources required to successfully migrate legacy data into CPIN. As a result, only five of the 14 Societies received data migration services over a 30-month period at a total cost of over $9.5 million—over three times the original contract amount.

4.8.4 Some Key Functions within CPIN Are Not Performing as Expected

We surveyed the five Societies that are currently using CPIN and found that several key components are not performing as expected. For example, the reporting function that was expected to facilitate Society and ministry oversight of service delivery is not working properly. One of the Societies evaluated the standard reports produced in CPIN that are meant to provide information on Society operations, such as caseloads and service volumes, and found that four out of every five reports were not accurate (for example, producing no results, not pulling correct information, having duplicate records), and one in every five reports could not be run at all. In addition, Societies indicated that caseworkers continue to lose critical information in contact logs and other documents in CPIN. As a workaround, workers have been asked to initially document their contacts and other activities using Microsoft Word before transferring the information into CPIN.

Societies also indicated that certain components of CPIN that are not functioning properly have important implications for child safety and Societies' ability to meet legislative requirements. Specifically, Societies indicated that they cannot track important legislative milestones for their cases in CPIN, such as due dates for visits with the child and family, and scheduled reviews of Service Plans intended to ensure that caseworkers conduct these on time. As a workaround, Societies are manually tracking due dates for each case using Microsoft Excel. As well, all five Societies indicated that as they transition to CPIN, due to numerous functional limitations they had to revert to using their legacy systems to perform some functions and to some degree implement numerous workarounds to ensure that their ability to deliver child protection services within legislative requirements is not compromised.

4.8.5 Other Jurisdictions Using the Same Case Management Software Have Experienced Positive Results

As described in **Section 1.5**, CPIN is built on four off-the-shelf applications that have been customized for the needs of the Ministry and the Societies. The core of the CPIN system is the Cúram application for the case management function, which is also used by three other Canadian provinces and several jurisdictions in the United States. One Canadian province that uses the same case management application has not reported any major outages or problems in the three years since implementation. We contacted the offices of the Provincial Auditor of Saskatchewan, and the Auditor General of Alberta, who both informed us that they were not aware of any significant concerns surrounding the use of Cúram for their new social services information systems. Other jurisdictions have also reported positive results. For example, one U.S. jurisdiction saw the percentage of children who received monthly visits increase from 50–65% to approximately 90% as accountability was better enforced through the case management system. Another U.S. jurisdiction saw the number of cases reopened with verified protection concerns within six months of prior closure decrease from 8% to 6.5% after implementing the case management system.

The positive results experienced in other jurisdictions suggest that the underlying software should be sound. However, the design and implementation of CPIN is complicated by the number of different legacy systems used in Ontario and the need to integrate three other applications for financial management, document management and reporting. This complexity and the lack of meaningful stakeholder consultations during key stages of the project have likely contributed to the functionality problems described in **Section 4.8.4**.

RECOMMENDATION 9

To help ensure that the Ministry of Children and Youth Services and the Children's Aid Societies realize the intended benefits of the Child Protection Information Network (CPIN) system, the Ministry should work closely with all key stakeholders to:

- review and update its recently developed strategy for CPIN to ensure that all critical functionality gaps are identified and resolved before the remaining Societies implement CPIN, and ensure that the strategy allows the system to be functioning as intended by 2020; and
- determine the cost of CPIN implementation to the remaining Societies, the impact of such costs on the Societies' ability to deliver mandated child protection services within their budget allocations, and how such costs should be funded.

MINISTRY RESPONSE

The Ministry agrees with the Auditor General and functionality issues will continue to be addressed as part of the CPIN deployment strategy. The Ministry has acted upon functionality issues highlighted in this report through planned updates made to CPIN in recent system releases, through assessment of local Society technological issues or resolution of user errors through additional training.

In addition, a governance process, which includes sector and Ministry representation, has been established to address and prioritize defects and enhancements. The Ministry will continue to work closely with the child protection sector to identify, prioritize and resolve any functionality issues with CPIN. System upgrades and enhancements will be ongoing and will continue to reflect user feedback and the evolving regulatory and policy landscape in child protection. The Ministry plans to have CPIN implemented in all Societies by fiscal year 2019/20.

The Ministry will continue to assess and revise its CPIN deployment methodology to provide enhanced supports to Societies for change management and data migration. In 2015/16, the Ministry has begun collecting more detailed data from Societies to analyze CPIN related expenditures including size and scope of training, change management and sustainability requirements. The Ministry will continue to monitor CPIN related expenditures to ensure a smooth and responsible transition to the new system.

This approach reflects an appropriate mix of pace, change management, and technical integrity. The Ministry will work to continually improve, applying lessons learned with CPIN deployment. The Ministry will work closely with the sector through the remaining deployment phases of CPIN to support ongoing delivery of mandated child protection services as each of the Societies are brought onto the CPIN.

Appendix—Recent and Planned Performance Indicators (PIs) for Child Protection Services

Source of data: Ministry of Children and Youth Services

Policy Priority Area	PI #	PI Name	Definition	# of Societies for which Data was Publicly Reported in 2015/16
Safety	1	Response time (12hr)	The percentage of investigations completed in the fiscal year where the response occurred within the required time frames or was subject to an approved departure.	n/a
	2	Response time (48hr)		
	3	Response time (7 days)		
	4	Recurrence of child protection concerns in a family after an investigation	The percentage of families that were investigated for child protection concerns (with no further service provided) and were later re-investigated within 12 months, and protection concerns were verified during the re-investigation.	27
	5	Recurrence of child protection concerns in a family after ongoing services were provided	The percentage of families that received services from a Society and were re-investigated within 12 months following receipt of services and where protection concerns were verified during the re-investigation.	26
	6	Safety in care	To be determined	n/a
Permanency	7	Entry to care	The percentage of children who were investigated and subsequently placed in care within 12 months following the investigation.	n/a
	8	Re-entry to care	The percentage of children who were discharged from care in the fiscal year and re-entered care within 12 months.	n/a
	9	Days of care by placement type	The percentage of days of care in the fiscal year by placement type for children in care.	44
	10	Time to permanency	For all children admitted to care during the fiscal year—the percentage discharged to a permanent living arrangement within a specific timeframe.	18
	11	Placement stability/moves in care	The average number of significant placement changes during 24 months experienced by children who enter out-of-home care during a fiscal year.	n/a
	12	Worker continuity/family services	For all cases transferred to ongoing services during the fiscal year, the percentage of changes in family service workers.	n/a
	13	Worker continuity/children in care	For all children admitted to care during the fiscal year, the percentage of changes in children's services worker since admission to care by length of time in care.	n/a

Policy Priority Area	PI #	PI Name	Definition	# of Societies for which Data was Publicly Reported in 2014/15
Well-being	14	Developmental assets of children in care	The average score of the Society caseworker's perspective on how the child/youth is developing based on the presence/absence of 20 internal (child/youth) attributes and 20 external (life circumstances) assets that are related to children's well-being or outcomes such as educational performance and avoidance of high risk behaviour.	n/a[1]
	15	Quality of the caregiver and youth relationship	The average score on the quality of the caregiver and youth relationship as scored by children in care.	41
	16	Education performance of children in care	The proportion of children in care who are at an age-appropriate grade level, or a year or more behind or a year or more ahead.	n/a[1]
Organizational Capacity	17	Client feedback	Percentage of Societies that have formal regular processes to collect client feedback.	n/a[1]
	18	Stakeholder feedback	Percentage of Societies that have formal regular processes to collect stakeholder feedback.	n/a[1]
	19	Staff turnover	Percentage of staff turnover by job classification for the calendar year.	n/a[1]
	20	Staff sick days	Percentage of short-term and long-term sick days by job classification for the calendar year.	n/a[1]
	21	Employee qualifications	Percentage of staff holding professional qualifications by job classification.	n/a[1]
	22	Accuracy of financial reporting	The percentage variance of the Society's year end actual against the original budget estimates and 3rd quarter budget forecast.	n/a[1]
Governance[2]	23	Right people as directors	Percentage of Societies that have qualified and capable directors and individuals that possess the requisite skills, experience, capacity, and attitude to fulfil the expectations of the role.	n/a[1]
	24	Clear and supportive structures	Percentage of Societies that have clear and supportive structures. For example, regular committee evaluations and clearly articulated terms of reference that describe roles and responsibilities of committees.	n/a[1]
	25	Reliable and enabling processes	Percentage of Societies that have reliable and enabling processes. For example, quarterly financial reviews and regular board performance assessments.	n/a[1]
	26	Healthy and sustainable culture	Percentage of Societies that have a healthy and sustainable culture. For example, a culture that emphasizes service quality and continuous improvement with a focus on the child, youth, and family.	n/a[1]

Note: The shaded performance indicators represent the five new performance indicators for which the Ministry collected aggregate data from Societies and reported the results publicly.

1. These performance indicators were not intended to be publicly reported in the 2014/15 fiscal year.
2. Based on survey responses from Society board members and executive directors to 10 questions per governance indicator.

Chapter 3

Ministry of Economic Development, Employment and Infrastructure

Section 3.04

Economic Development and Employment Programs

1.0 Background

1.1 Overview

1.1.1 Ministry's Economic Development and Employment Programs

As part of its efforts to support economic development and employment in Ontario, the provincial government provides multi-year grants and interest-free loans to businesses to help with projects ranging from expansion to export growth to research and development.

Several ministries deliver these supports, but the funds that focus entirely on existing businesses flow through the Ministry of Economic Development, Employment and Infrastructure, formerly the Ministry of Economic Development, Trade and Employment (Ministry).

Since 2004 and up to May 31, 2015, the Ministry had committed through contracts with businesses to funding 374 projects with a total of $2.36 billion—$1.87 billion in grants and $489 million in loans—through seven different funds, described in **Figure 1**. Between 2004 and May 31, 2015, the Ministry had disbursed $1.45 billion of the $2.36-billion commitment, including $130 million for the year ended March 31, 2015. The remaining $913 million in committed funds will be paid over the next 11 years, while the projects are being completed and if they meet job and investment targets.

The seven ministry funds each have distinct mandates, and focus on different industries and geographic areas of the province. In the last decade, they have assisted projects involving information and communication technology, clean/green technology, financial services, life sciences, automotive, manufacturing, and research and development. The Ministry generally does not fund projects related to agriculture, forestry, mining, oil and gas, or transportation.

Ministry objectives and responsibilities are laid out in the *Ministry of Economic Development and Trade Act*, while its responsibility for economic development specifically in Ontario's eastern and southwestern regions is governed by the *Attracting Investment and Creating Jobs Act, 2012*.

For the year ended March 31, 2015, the Ministry had about 46 full-time equivalent staff and spent $4.9 million to administer its economic development and employment programs.

Other Programs Offered

The Ministry also administers Sector Support Funds that provide one-time grants to not-for-profit organizations for economic development, innovation and commercialization, science and research, and/or trade and investment. Grants have included

Figure 1: Direct Business Support Programs Administered Since 2004 by the Ministry of Economic Development, Employment and Infrastructure, as of May 31, 2015

Source of data: Ministry of Economic Development, Employment and Infrastructure

	Ontario Automotive Investment Strategy	Advanced Manufacturing Investment Strategy	Next Generation of Jobs Fund	Eastern Ontario Development Fund	Southwestern Ontario Development Fund	Strategic Jobs and Investment Fund (including Strategic Investment Fund)	Jobs and Prosperity Fund	Total
Total funding originally announced	$500 million	$500 million	$1.150 billion[1]	$20 million annually	$20 million annually	$375 million	$2 billion[2,3]	
Year started-ended	2004–applications closed in 2009	2005–applications closed in 2010	2008–applications closed in 2009	2008–ongoing	2012–ongoing	2010–applications closed in 2013	2015–ongoing	
Average contract length	5–10 years	5 years disbursement, plus 5 years loan repayment	5 years	3–4 years	3–4 years	5 years	No completed contracts yet	
Application or invitation[4]	Application					Invitation		
Purpose of fund	Assists automotive assembly companies and parts manufacturers. Focuses on environmental and energy technologies. Provides skills training and employment.	Lends to manufacturers for investment in leading-edge technologies and processes to increase productivity and competitiveness, while creating/retaining jobs.	Provides assistance to companies for innovations in research, development and commercialization, while creating and/or retaining jobs and investing in Ontario.	Provides assistance for employment and regional economic development to businesses and organizations in eastern Ontario.	Provides assistance for employment and regional economic development to businesses and organizations in southwestern Ontario.	Provides assistance to help companies compete globally, while creating and retaining skilled jobs and investing in Ontario.	Provides assistance to companies investing in projects related to productivity, innovation and exports to enable them to compete globally.	
Type of funding and maximum	Grants and loans up to 10% of total eligible costs.	Loans: 5 years, interest-free, $10 million max., and up to 30% of total eligible costs.	Grants up to 15% of total eligible costs.	Grants: $1.5 million max. Loans: $5 million max.	Grants: $1.5 million max. Loans: $5 million max.	Grants and/or loans approved ranged from $300,000 to $220 million.	Grants: up to 20% of eligible costs (up to 50% for Strategic Partnerships Stream). Grants and loans: up to 40% of eligible costs. Note: Loans do not apply to Strategic Partnerships Stream.	

	Ontario Automotive Investment Strategy	Advanced Manufacturing Investment Strategy	Next Generation of Jobs Fund	Eastern Ontario Development Fund	Southwestern Ontario Development Fund	Strategic Jobs and Investment Fund (Including Strategic Investment Fund)	Jobs and Prosperity Fund	Total
# of contracted projects	10	44	39	146	95	40	–[5]	**374**
Total grants contracted	$300 million	–	$741 million	$71 million	$70 million	$689 million	–[2,5]	**$1.871 billion**
Total loans contracted	$176 million	$223 million	–	–	$4 million	$86 million	–[5]	**$489 million**
Total Grants and Loans Contracted[6]	**$476 million**	**$223 million**	**$741 million**	**$71 million**	**$74 million**	**$775 million**	**–**	**$2.36 billion**
Total disbursed to date	$465 million	$211 million	$427 million	$49 million	$14 million	$281 million	–[5]	**$1.447 billion**
Total contracted recipient investments[7]	$5.771 billion	$1.396 billion	$4.497 billion	$690 million	$797 million	$11.452 billion	–[5]	**$24.603 billion**
# of jobs contracted	46,341	5,397	8,586	17,221	21,992	26,285	–	**125,822** (consists of 20,896 created and 104,926 retained)
# of jobs-to-date[8]	22,228	5,154	9,380	12,068	3,724	19,033	–	**71,587** (consists of 12,298 created and 59,289 retained)
Total actual investments made by recipients to date	$5.358 billion	$1.309 billion	$2.783 billion	$503 million	$144 million	$3.327 billion	–	**$13.424 billion**

1. Total funding originally announced for the Next Generation of Jobs Fund was $1.15 billion. Of that, $850 million is administered under the Ministry's Jobs and Investment, and Biopharmaceutical Investment programs. The remaining $300 million is administered by the Ministry of Research and Innovation.
2. The Ministry transferred approximately $780 million of committed project funding from other ministry programs, including the Next Generation of Jobs Fund, into the new Jobs and Prosperity Fund. This chart keeps these expenditures in their original programs.
3. Total funding originally announced for the Jobs and Prosperity Fund was $2.7 billion. Of that, $2 billion will be administered by the Ministry under the New Economy Stream. The remaining $700 million will be administered by other ministries, including Research and Innovation, and Agriculture, Food and Rural Affairs.
4. Businesses can apply for application-based funds if they meet the fund's eligibility criteria. Invitation-based funds are not open to the public; instead, the Ministry selects which businesses to invite to submit an application.
5. As of July 2015, the Ministry was still reviewing funding applications for the new Jobs and Prosperity Fund, and there were no completed contracts under this program.
6. Contracted amounts are disbursed over the life of the contract if job and investment targets are met.
7. Total recipient investment includes all amounts with the recipient, including ministry grants and loans, for approved projects.
8. Jobs data as of March 31, 2015.

one to a university for construction of a new research facility, and others to the Ontario Chamber of Commerce for seminars to help businesses increase exports. In 2014/15, total Sector Support grants were $31 million.

The Ontario government also provides economic development and employment support funding through other ministries, which then fund businesses as well as other organizations such as municipalities, universities, and non-profit agencies. **Appendix 1** describes all economic-support funding across the Ontario government, totalling almost $2 billion, in the fiscal year ended March 31, 2015.

The Ministry of Finance also provided financial assistance to businesses through corporate income-tax credits. In 2014/15, there were 17 types of corporate income-tax credits available to businesses, costing the province $2.877 billion as follows:

- Forgone revenue of $1.962 billion related to the general deduction for small businesses—$1.595 billion; research and development-$170 million; manufacturing and processing—$175 million; and other general deductions- $22 million; and
- Refunded corporate income tax credits of $915 million relating to film and media expenditures—$422 million; research and development—$193 million; and apprenticeship and training—$300 million.

1.1.2 Approval Process for Projects

The Ministry employs "client leads," who have expertise in various areas of industry, to develop relationships with businesses in an effort to encourage investments in the Ontario economy. Often, they also help businesses apply for project funding. Other ministry employees, called case managers, are responsible for project assessment, contracting, and monitoring of projects.

When a business submits a project proposal, the Ministry conducts a review to ensure it is eligible for funding. This review includes an evaluation by an external third party or an internal ministry expert. This evaluation is to include a financial and technical assessment of the viability of the project and the applicant, and an analysis of such risk factors as the experience of management, likely markets for the project's deliverables, and any other potential obstacles to the success of the proposed project.

The Ministry is to use third-party assessments for projects of greater scope or higher dollar amounts. Funds implemented after 2010 assess proposals using a process that includes a return-on-investment model based on the net present value of the expenditures and revenues to arrive at the net financial benefit and the payback period of the project.

Decisions on grants and loans are made in a series of meetings by committees composed of senior management staff from the various ministries. While approval requirements differ between programs, a committee of deputy ministers generally reviews each proposal. Final approval is up to the Minister of Economic Development, Employment and Infrastructure and, when applicable, other ministers. Treasury Board approval is required for larger projects, usually that do not meet fund criteria or for which ministry funding exceeds $25 million.

Recipients Sign Performance Contracts with Ministry

Grants and loans are governed by individually negotiated contracts between the Ministry and recipients that require recipients to meet certain defined deliverables. These include a requirement that the recipient invest a minimum amount of money in the project, and meet targets for creating and/or retaining a set number of jobs. Most projects take three to five years to complete, and funding can cover capital, labour, and research and development costs.

During the contracting stage, ministry lawyers and the recipient draft a final agreement, which typically spells out the performance targets described above. These targets are enforceable by provisions in the contract that require the recipient to reimburse some or all of the grant or loan, or pay interest on the loan, if the targets are not met.

1.1.3 Project Monitoring and Reporting Process

Throughout the life of a project, the recipient is generally required to report back twice yearly to the Ministry on project milestones and on progress of investment and job-creation/retention goals.

Projects are rated as low-, medium- or high-risk, and these ratings determine how much monitoring the Ministry does. For example, ministry guidelines require a minimum of one site visit every 12 months for high-risk projects, one visit every 24 months for medium-risk projects, and one every 36 months for low-risk projects.

Rather than pay out the full amount of the grant or loan at the start of a project, the Ministry usually makes disbursements in instalments throughout the life of the project. Recipients must submit invoices to support eligible costs before the Ministry makes a disbursement under a contract. However, some projects may receive advance payments on contract signing.

The Ministry uses its electronic Client Relations Management system (eCRM) to track direct-business-support projects. The system captures recipient and project details, such as main contacts, address, financial information about the recipient, project details, contract details such as grant and/or loan amount, and disbursement details. Various reports can be run on eCRM by case managers, including which monitoring activities are overdue.

At the end of a project, but before final payment, recipients are required to provide an external auditor's certification that investment targets were met. Projects contracted after 2012 also require an external auditor's certification that job targets were met. Prior to 2012, the Ministry did not verify reports about jobs created and/or retained.

1.1.4 Ministry's Internal Performance Reporting

The Ministry's internal key performance measures and results (as per the Ministry's eCRM system):

- **Actual investments achieved**: The amount of its funds that a recipient has invested in a project (also referred to as total investment leveraged). Investment targets are set as terms within the contract. Between 2004 and May 2015, recipients invested $13.42 billion in these projects, including the grants and loans of $1.45 billion that the Ministry has paid so far to these projects.
- **Actual jobs created and retained**: The number of jobs a recipient has created and/or retained as a result of a project. Job targets are set as terms within the contract. Between 2004 and March 31, 2015, there were 12,298 jobs created and 59,289 jobs retained, for a total of 71,587 jobs. The contracted number of jobs over the full life of the projects is expected to be 125,822, consisting of 20,896 created and 104,926 retained.
- **Total contracted investment leveraged**: The committed investment amount over the life of the project by a recipient for every $1 in Ministry funding. Between 2004 and March 31, 2015, the Ministry reports that for every dollar of funding, recipients invested another $6.08 to $13.64, depending on the fund.
- **Total cost per job per year**: Calculated based on total grant funding contracted by the Ministry and total jobs-created targets. (If the funding is in the form of a loan, cost per job is calculated based on the Ministry's cost of borrowing.) Between 2004 and March 31, 2015, the cost per job per year to the Ministry ranged from $718 to $16,981, depending on the fund.

Each year, the Ministry reports publicly on most new projects approved under each fund, indicating the recipient company, dollar amount of funding approved, committed total investment to be made by the recipient, and committed number of jobs to be created and/or retained.

New Jobs and Prosperity Fund

In January 2015, the government announced it would fold many existing programs, except the eastern Ontario and southwestern Ontario development funds, into a new $2.7-billion Jobs and Prosperity Fund, with $2 billion of these funds administered by the Ministry and $700 million by other ministries. The Jobs and Prosperity Fund has three streams:

- The *New Economy Stream* provides funding for private-sector organizations to build innovation and capacity, improve productivity, performance and competitiveness, and increase access to global markets. This stream is available for projects with at least $10 million in eligible costs, and is aimed at such key sectors as manufacturing, life sciences, and information and communications technology. Some funding from this stream is delivered or accessed by other ministries, including Research and Innovation, Aboriginal Affairs, and Agriculture, Food and Rural Affairs.
- The *Food and Beverage Growth Fund* provides funding for strategic investments to create sustainable jobs, enhance innovation, productivity and market access, and strengthen supply chains in the food, beverage and bio-product processing sectors. The Fund is available for projects across the province with more than $5 million in eligible costs, and is jointly administered by the Ministry of Economic Development, Employment and Infrastructure, and the Ministry of Agriculture, Food and Rural Affairs.
- The *Strategic Partnerships Stream* provides funding for companies partnering to develop enabling technologies for Ontario's targeted industry sectors. This stream is available for partnerships with at least $10 million in eligible costs, and focuses on technologies with the potential to transform multiple industries across Ontario.

At the end of our field work in July 2015, all funding approved through the Jobs and Prosperity Fund was based on the requirements of the old funds that were folded into it. The Ministry had not yet finalized any contracts under the new Fund's own policies.

1.2 Recent Performance of Ontario Economy

As shown in **Figure 2**, many different economic factors can influence Ontario's Gross Domestic Product (GDP), which represents the total value of all finished goods and services produced in Ontario for the year. The economic downturn in 2008 affected many Ontario industries, particularly the

Figure 2: Examples of Impact on Ontario GDP Growth of Changes in Key External Factors (based on 2014 GDP of $721 billion)

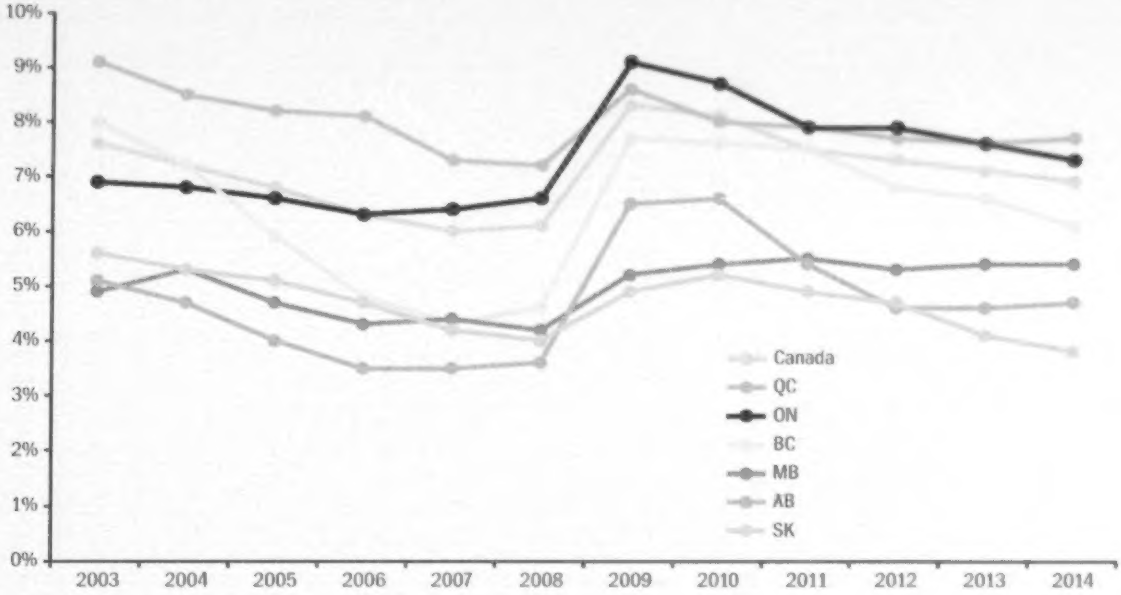
Prepared by Office of the Auditor General of Ontario

Key External Factors	Example of Changes in External Factor	Estimated Impact ($ billions)
Canadian dollar	Depreciates by five cents U.S.	+2.9
Crude oil prices	Decrease by $10 U.S. per barrel	+1.4
U.S. real GDP growth	Increases by one percentage point	+2.9
Canadian interest rates	Decreases by one percentage point	+2.2
Net Ontario exports (2014: total exports of $177 billion, less total imports of $295 billion, for a trade deficit of $118 billion)	Increase by $100 million	+0.1
Infrastructure spending in Ontario*	Increases by $100 million	+0.1

* Infrastructure includes machinery, equipment and structures such as roads. Assumes that all spending goes to Ontario-based companies. Impact on GDP will be less if infrastructure spending goes to companies based elsewhere.

Figure 3: Average Unemployment Rates for Canada, Ontario and selected other provinces, 2003–2014*

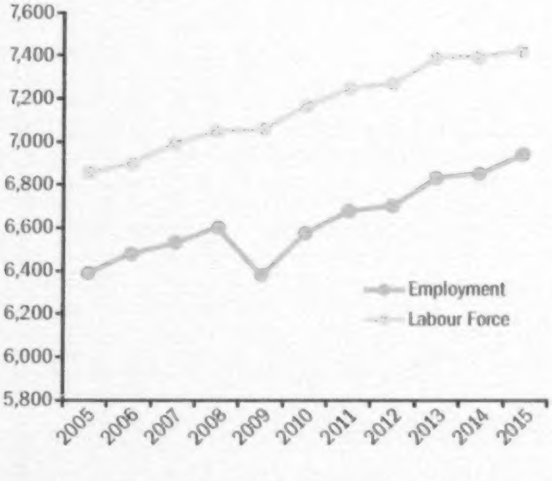
Source of data: Statistics Canada



* 2003 was used as the initial year because the first direct business support program administered by the Ministry commenced in 2004. Unemployment rate is based on the average for the calendar year, so 2015 was not yet available.

Figure 4: Number of People in Ontario Labour Force, and Number Employed, as of June 2005–2015 (000)

Source of data: Statistics Canada



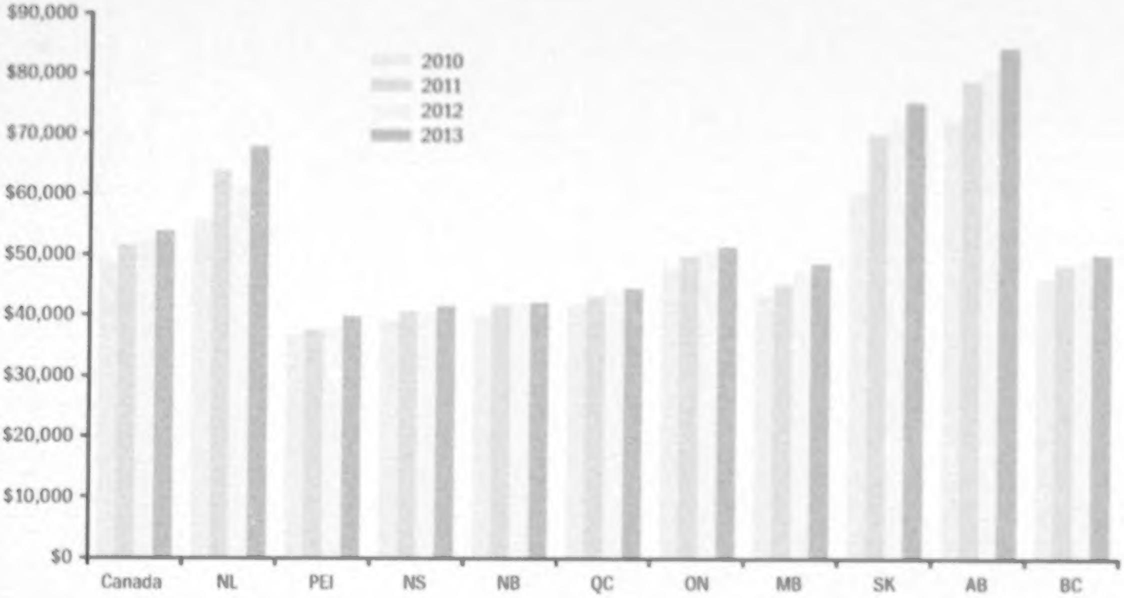
auto, manufacturing and resource sectors, although economic indicators since then suggest there has been some recovery.

As indicated in **Figure 4**, according to Statistics Canada's monthly labour force survey, for the 10-year period from June 2005 to June 2015, Ontario created 560,400 net new jobs, which is also the approximate number of jobs recovered since the recessionary low in June 2009. As of June 2015, there were 6.946 million jobs in Ontario.

However, over the last several years, Ontario's average unemployment rate of about 7% has been slightly higher than the Canadian average, and significantly higher than that of the western provinces, as **Figure 3** indicates. It also shows that Ontario's unemployment rate increased almost 11%, from 6.6% for 2005 to 7.3% for 2014, (2014 is the latest annual figure from Statistics Canada). As **Figure 4** also shows, one of the main reasons the unemployment rate has not improved during a period where there are more net new jobs in Ontario is that the labour force grew at about the same rate as the number of new jobs (through, for example, immigration). Also, business investments in machinery

Figure 5: Gross Domestic Product (GDP) per capita of Canada and its provinces, 2010–2013

Sources of data: Statistics Canada



and equipment have increased 14% since the economic downturn.

As **Figure 5** shows, Ontario's GDP per capita has risen at a similar pace as that of other provinces over the last four years. However, while Ontario has been consistently higher than Manitoba and British Columbia, it has been significantly lower than Alberta and Saskatchewan. Economic growth in Ontario has been negatively impacted by the slow U.S. economy, rising oil prices, higher electricity rates, and a higher-than-anticipated Canadian dollar.

While statistics for 2015 were not yet available, Ontario's economy will likely benefit further from major drops in the price of oil, the lower Canadian dollar, and continuing low interest rates, all of which favour Ontario's manufacturing sector.

2.0 Audit Objective and Scope

Our audit objective was to assess whether the Ministry of Economic Development, Employment and Infrastructure (Ministry) had effective systems and procedures in place to ensure funding was used efficiently and effectively towards the development, growth and efficiency of industry and trade in goods and services, as well as the growth of productive employment, in accordance with legislative requirements, directives, and program policies and guidelines; and that funding objectives are measured and reported on. Senior management at the Ministry agreed to our audit objective and criteria.

Our audit work was conducted primarily at the Ministry's head office in Toronto between December 2014 and June 2015, and focused on economic development and employment programs offered by the Ministry. However, we also researched economic development and employment programs administered by other ministries and agencies, and we spoke with representatives from ministry and agency programs such as the Ministry of Training Colleges and Universities, the Northern Ontario Heritage Fund Corporation, and the Ministry of Agriculture, Food and Rural Affairs, to understand how their programs are administered. We also met with the Ministry of Finance to discuss refundable tax-credit incentives for business as another means of economic development and employment support provided by the province.

We reviewed or examined in more detail 62 out of the 374 projects contracted, accounting for 45% of the $2.36 billion total committed funds. We sampled from six of seven funds; the Jobs and Prosperity Fund was excluded since it was just starting up during our field work, and no projects had been approved under the new Fund's policies. Grants and loans for the projects we sampled ranged from $500,000 to $264 million, and were provided between 2004 and 2014. Our sample included projects that had been completed, and others that were still active.

We interviewed ministry staff responsible for assessing project proposals and monitoring approved projects, and client leads responsible for forming and developing relationships with businesses to achieve investments in the Ontario economy. We also interviewed former senior ministry employees involved in approving projects, representatives from local chambers of commerce, the Canadian Manufacturers & Exporters (a trade and industry association) the Ontario Centres of Excellence (a government-funded organization that partners with academic institutions and businesses to create jobs and innovation in industry), and the Conference Board of Canada (an independent not-for-profit organization that conducts research on the economy).

In addition, we interviewed several businesses that received grants and loans in the last five years to get their perspective on the effectiveness of these funds. We also engaged an independent expert on economic development, and conducted research on similar programs offered by other jurisdictions in Canada and the U.S.

3.0 Summary

The Ministry of Economic Development, Employment and Infrastructure (Ministry) has not attempted to measure whether the $1.4 billion it provided to Ontario businesses since 2004 actually strengthened the economy or made recipients more competitive.

In addition, the Ministry's new Strategic Investment Framework (Framework) does not include a plan for how to measure outcomes from future economic development and employment supports, including for its new Jobs and Prosperity Fund. For example, the Ministry's only measures of performance are jobs created and a recipient's leveraged investment; it has not set a goal for minimum GDP growth or unemployment rate reductions. Other provinces have set such goals to guide their economic-development efforts. We expected the Ministry of Economic Development, Employment and Infrastructure (Ministry) to have had authority to oversee the funding of all ministries intended for economic development and employment purposes, but it only has authority for the programs it manages directly.

Even though Ontario, like most other provinces, has shown improved economic performance in each of the last four years, the need for the Ministry to ensure its programs benefit the economy is still important. Many expert reports question whether such programs or funding actually achieve any economic benefits (see **Appendix 2** for a list of key expert reports we reviewed).

In addition, while the Ministry recognizes the economic benefits of promoting key regions and establishing industry "clusters"—geographic concentrations of interconnected businesses, suppliers, and associated institutions in a particular field—it has not developed a strategy for its involvement for each region and cluster that identifies key strengths and barriers or weaknesses that it can help to address.

The Ministry could, for example, help identify for each industry the educational institutions that would best support that industry. It could also identify the training and apprenticeship skills needed; the local availability of skilled workers, suppliers of services and materials, and transportation networks; and the potential for local and foreign markets for the products or services.

Information from the above work could help it establish an action plan on how its support programs can be used to address barriers and weaknesses; how to promote industry clusters for maximum benefit; establish targets and timetables for expected growth; and identify the size of businesses to which it will provide grants or loans. As it does not conduct such analyses, the Ministry cannot fully identify the types of economic development and employment support projects that may most effectively strengthen the province's clusters and regions.

Expert reports over the last several years have also highlighted the importance of small- and medium-sized businesses, which account for about one-third of Ontario's GDP. While 40% of the number of projects funded by the Ministry related to existing small- and medium-sized businesses, the dollar value of that support amounted to less than 4% of its total funding. No support went to new start-ups, and projects were limited to certain areas of the province. The Ministry has neither assessed how many small- and medium-sized businesses lack access to supports, nor made it clear why its funding is targeted primarily to large businesses.

Despite the Ministry's mandate to support a strong, innovative and competitive economy that provides jobs and prosperity for all Ontarians, nine other ministries independently also provide similar funding to businesses. The Ministry does not have the authority to co-ordinate with other ministries, which deliver $1.8 billion of additional economic development and employment support funding. Although the new Framework outlined an "all-of-government" approach, each of the other nine ministries still continues to deliver support funding without the overall co-ordination that could ensure the best use of funds. For example, the Ministry of Finance provides over $1.3 billion (*excluding* the small business deduction of $1.6 billion) of corporate income tax credits specifically targeted to economic development and employment support to businesses each year, but the Ministry of Economic Development, Employment and Infrastructure rarely considers these when determining whether to provide grants and loans. We found that the Ministry generally performed well with respect to the approval process in administering and overseeing its own economic-development and employment-support programs.

Recognizing Ontario's unco-ordinated approach, expert reports have recommended consolidation of economic development- and employment-related funding across ministries. Consolidation may achieve efficiencies when administrative functions are combined, and could provide a more informed basis for decision-making by government on how to target funding to certain sectors or areas of the province. Without such information, the Ministry cannot assess long-term government funding patterns and the extent to which funding has resulted in benefits to the economy. We noted it cost about $80 million in the fiscal year ending March 31, 2015 to provide administrative functions for programs offered by other ministries that provide economic development support.

We also noted other systemic issues regarding the way the Ministry administered its own economic development and employment support funding. Among our findings:

- **Little transparency in how funding is awarded**: Since 2010, about 80% of total approved funding was made through non-publicly advertised processes in which only selected businesses were invited to apply. The Ministry determined internally which businesses were to be invited, instead of making the funding more broadly available. The Ministry could not provide us with the criteria used to identify the businesses it invited to apply for funding; neither could it provide us with a list of the companies it invited to apply, or a list of those whose applications were unsuccessful.

- **Funding often awarded without needs assessment**: The Ministry almost never assesses whether businesses need public funding in order to achieve the proposed project. Furthermore, some projects were approved for funding even though there was evidence they would have proceeded even without government help.
- **Ministry gets no share of project successes**: None of the Ministry's contracts with recipients give the government a share of any successes. For example, in two cases—one where the Ministry committed to invest 35% in a project with a total cost of $741 million, and another where it committed 50% toward total project costs of $5.4 million—there was no indication the Ministry considered obtaining an equity stake in exchange for funding.
- **Key economic goals ignored**: Even though expert reports stress that economic development support funding should be focused on increasing exports, developing innovations or increasing productivity, no contracts with recipients formally require improvements in any of these areas (they only require businesses to invest in projects and to either retain or create an agreed upon number of jobs during the project). Also, the Ministry has no performance measures to indicate whether funded projects have achieved such lasting economic benefits beyond the project end date.
- **No post-contract monitoring of job-creation results**: One of the only measures the Ministry requires recipients to report on is jobs created and/or retained, with the Ministry reducing funding when these are not achieved. However, the Ministry does not monitor beyond the contract term, which is usually five years, and so has no information on whether jobs created or retained are long lasting.
- **Project results not made public**: Although the Ministry usually, but not always, makes its initial funding decisions public, it does not publicly report overall or individual results at the expiry of projects. For example, neither the total number of jobs retained or created, nor the total funding provided to companies in exchange for investments, is made public. Furthermore, for about 60 projects with over $70 million of committed funding, no information was released about the amounts funded, or which companies received the funding.
- **Some public information misleading**: Over the last 10 years and as recently as January 2015, the government publicly announced almost $1 billion more of economic development and employment support funding projects by re-announcing the same available funding under different fund programs.

This report contains nine recommendations, consisting of 17 actions, to address the findings noted during this audit.

OVERALL MINISTRY RESPONSE

The Ministry thanks the Auditor General for her report and recommendations. We are committed to addressing these recommendations as part of our ongoing work to ensure quality programs and to improve economic outcomes for the Province.

The Ministry is in the process of change as a result of the government introducing the new Jobs and Prosperity Fund and Strategic Investment Framework. These programs will significantly transform the way this Ministry and others deliver economic development and employment programs. These changes will address the recommendations you have brought forward.

4.0 Detailed Audit Observations

4.1 Planning and Co-ordination of Economic Development Support Funding

4.1.1 Ministry Needs to Continue to Develop a Comprehensive Strategy

The Ministry of Economic Development, Employment and Infrastructure (Ministry) has developed no plan for the effective use of economic development and employment support funding. While the Ministry conducts research on economic sectors and regions in Ontario, it has not used this research to develop a provincial- or regional-sector strategy to allow it to more effectively provide support to businesses, strategically target key business sectors, and set targets for improvements. A comprehensive and effective strategy for economic development and employment supports would help address Ontario's lagging competitiveness compared to other Canadian and U.S. jurisdictions in areas such as private-sector job creation and high electricity rates. During our audit, the Ministry was determining how it was going to implement its part of a new Strategic Investment Framework introduced by the government in January 2015, meant to co-ordinate all ministries' approach to business supports focused on promoting productivity growth, stimulating innovation, and promoting exports.

4.1.2 Room to Improve Ontario's Competitiveness in North America

While there are many reasons that foreign businesses from North America and across the globe invest in Ontario, attracting investment is very competitive with other jurisdictions. Ontario has several competitive advantages relative to other jurisdictions, such as a highly educated workforce and a good standard of living. Nevertheless, there is a need to continuously improve Ontario's competitiveness to ensure businesses invest in Ontario and that existing Ontario business can effectively compete globally.

Several organizations, including the Fraser Institute and the Task Force on Competitiveness, Productivity and Economic Progress, have issued reports on Ontario's economic competitiveness and prosperity (for a list of these reports, see **Appendix 3**). These studies have concluded that the Ontario economy is not as competitive or as prosperous as those of competing jurisdictions in Canada and the U.S.

In an April 2014 study, the Fraser Institute examined Ontario's economic well-being, because there is a high correlation between the province's performance and Canada's as a whole. It states that since 2000, Ontario has recorded the third lowest rate of private-sector job creation in the country, ahead only of Nova Scotia and New Brunswick, and its share of total Canadian exports has steadily declined. Further, Ontario has performed poorly in such areas as GDP growth, employment gains, and unemployment reduction. As well, on a per-capita basis, Ontario reported the second highest net debt level of all the provinces in the fiscal year ending March 31, 2013. The report concludes that Ontario's poor performance and growth issues have serious implications for the overall Canadian economy due to the highly integrated nature of the provinces and the fact that Ontario represents a significant percentage of Canada's economic activity.

In two reports, entitled *Course Correction* (2012) and *Open for Business* (2015), the Institute for Competitiveness and Prosperity also criticized Ontario's economic performance as compared to more than 14 peer jurisdictions in North America. In 2013, Ontario had the third lowest GDP per capita of this group, at $11,000 below the average, and this figure has remained stagnant over the past decade. Ontario has lower productivity than most of its peers, and has had low investment in manufacturing, research and development, and information technology and communications. With higher unit labour costs and lower infrastructure spending than competing regions, Ontario was considered a less desirable jurisdiction in which to locate a business. The reports also criticize Ontario's tiered corporate tax structure; without a flat corporate tax, Ontario is at a disadvantage compared to competing jurisdictions.

In addition, industrial electricity rates in Ontario are among the highest in North America, which compromises Ontario's ability to attract investment. The manufacturing industry, in particular, requires large amounts of electricity for their operations and large rate increases over the past decade have made Ontario less competitive. **Figure 6** illustrates average electricity rates for large power customers (at least 5,000 kW) across major cities in North America. Ottawa and Toronto have the second- and fourth-highest rates, respectively, of the 19 cities in the rankings. Rates for mid-sized industrial consumers are also high, with Ottawa and Toronto ranking fourth- and seventh-highest among the 19 cities compared.

These reports suggest the Ministry has a crucial role to play in support of Ontario's economic prosperity and its ability to attract investment through its economic development and employment support funds. In order for it to meet its mandate, the Ministry would need to actively co-ordinate with other ministries and agencies delivering similar support programs.

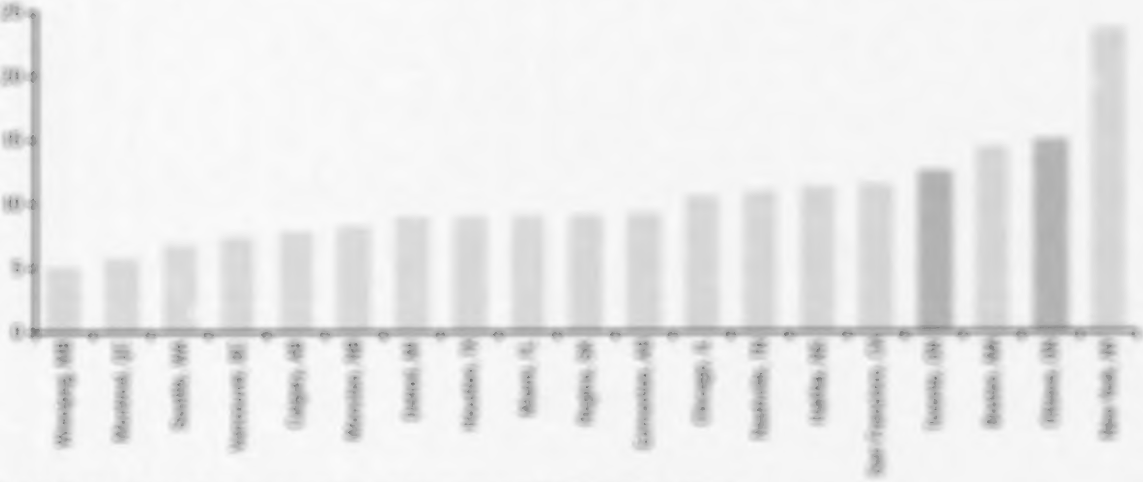
4.1.2 Outcome Targets Needed for Economic Development and Employment

The 2012 *Report of the Commission on the Reform of Ontario's Public Services*, commonly known as the Drummond Report, recommended that the government publish an "economic vision" for Ontario. This vision was to identify which sectors of the economy have grown in recent years, and which have declined, in order to identify the sectors to be targeted for investment.

Until late 2014, the Ministry operated without a comprehensive plan for its business support programs. In November 2014, the government approved a Strategic Investment Framework (Framework) and announced it in January 2015 as the Ministry's new strategy. The Framework was to take an "all of government" broad strategic approach by aligning business supports from all ministries. It also included guiding principles for future economic development and employment program investments focused on promoting

Figure 6: Average Electricity Prices for Large Customers (power demand of 5,000 kW) Among Major North American Cities, as of April 2014 (¢/kWh)*

Source of data: Hydro-Québec



* Hydro-Québec calculates these rates to include supply, transmission and distribution costs, and taxes.

productivity growth, stimulating innovation, and promoting exports.

The Framework lists the following "sector/cluster priorities" for several ministries:

- Ministry of Economic Development, Employment and Infrastructure: auto, aerospace, information and communications technology, clean technology, financial services, and chemistry;
- Ministry of Research and Innovation: life sciences;
- Ministry of Agriculture, Food and Rural Affairs: agri food;
- Ministry of Northern Development and Mines: mining;
- Ministry of Natural Resources and Forestry: forestry; and
- Ministry of Tourism, Culture and Sports: entertainment and creative.

While the Framework is a positive first step in establishing a co-ordinated plan for economic development and employment programs, we noted that the Ministry did not plan to establish a strategy for each sector/cluster priority in the Framework. Absent were strategic plans for the Ministry to:

- identify regions where key strengths and weaknesses exist for products, services, resources, transportation, and labour skills and workforces, to inform both the establishment of industry clusters and the creation of a plan to address weaknesses and promote strengths;
- assess how its support programs can be used to promote industry clusters for maximum benefit to local and provincial economies;
- establish targets and timetables of expected growth, such as improvements to businesses' sales, employment rates, and wages;
- mitigate Ontario's high electricity rates for industrial users; and
- identify the size of businesses to which it will provide direct support, in the form of grants or loans. For instance, the programs administered by the Ministry are aimed primarily at larger corporations that typically already have the capacity to fund large projects. The Ministry does not currently target small- and medium-sized businesses in high-growth industries, or newer companies with high-growth potential.

4.1.4 Other Provinces Set Targets

Neither the Ministry nor the Framework established for it have set any targets, either for the economy, the Ministry as a whole, or even for individual funds administered by the Ministry. However, we noted other provinces have established such measurable targets for economic and employment growth.

In 2011, British Columbia released its economic strategy to create jobs and investment in the province in a document entitled *Canada Starts Here – The BC Jobs Plan*. The strategy focused on enabling job creation by working with employers and communities, improving infrastructure, and expanding markets for its products and services, especially in Asia. Specific goals included:

- establishing a BC Jobs and Investment Board to foster economic development and hold government accountable for delivering new investments to the province and facilitating new economic opportunity;
- investing $5 million in border infrastructure and information systems; and
- placing BC in the top two spots for GDP and new job growths in Canada by 2015.

In 2014, British Columbia released its three-year progress report on the BC Jobs Plan and reported on their achievements to date, including:

- creation of more than 50,000 jobs, giving BC one of the fourth-lowest unemployment rates of any province;
- a GDP increase of $7.2 billion, or nearly 4%; and
- an increase in exports of more than 32% since 2009.

More recently, other provinces have also created similar plans.

In early 2013, for example, Saskatchewan released the Saskatchewan Plan for Growth: Vision 2020 and Beyond, which contains several goals related to economic growth. These include 60,000 more jobs and a doubling of exports.

In 2014, Alberta released Building on Alberta's Strengths: Alberta's Economic Development Framework. Goals and targets include:

- a compound annual growth rate of 1.3% between 2012 and 2019 in real GDP per hour worked in the business sector;
- an increase in the value of Alberta merchandise exports to non-U.S. markets from $11.9 billion in 2013 to $21 billion in 2019;
- maintaining Alberta's annual average unemployment rate at between 4.0% and 5.0%;
- increasing the proportion of high-growth firms (those with more than 20% annual growth over three years) from 5.8% of the total in 2011 to 9% in 2019; and
- growing employment in knowledge-intensive companies at a compounded annual growth rate of 2.0% between 2012 and 2019.

Ontario has no similar plan or publicly stated targets for job creation, wages or exports growth.

4.1.5 Ministry Support Not Yet Focused on Clusters, Strategic Partnerships or Small- and Mid-sized Businesses

Many expert reports over the last five years have recognized the importance of supporting and promoting industry clusters, which are geographic concentrations of interconnected businesses, suppliers, and associated institutions in a particular field, such as the automotive cluster in southern Ontario and the information technology sectors in the Kitchener-Waterloo, Ottawa, and greater Toronto areas.

However, the Ministry has not identified those businesses emerging as part of, or already functioning within, such clusters. As a result, it does not have an effective strategy for funding new projects to achieve stronger clusters. Also, the Framework does not address the required ties with universities, local chambers of commerce, and other levels of government to ensure the broad development of regional industry clusters across the province.

Representatives from local chambers of commerce told us the Ministry could help improve regional economies by inventorying these clusters and facilitating their development. While economic development and employment support funding in some cases is provided to industry clusters, the Ministry does not track how much of this funding has been used to strengthen them, and sets no targets to assess whether the funding is effective.

More recently, we noted the Ministry has initiated processes to focus on industry clusters. Since the *Partnerships for Jobs and Growth Act, 2014* came into force on April 1, 2015, the Ministry has been developing the operational policy to support cluster development in the province. The Ministry has also developed an assessment framework to identify key Ontario cluster opportunities for the Minister's consideration.

The Framework does not target small- and medium-sized businesses (those having fewer than 500 employees), particularly those in potentially high-growth industry sectors, or indicate how much funding they should get. Moreover, in spite of their potential, small- and medium-sized businesses are eligible to apply only to the two regional funds.

Our review of the recipients of the regional funds determined that while about 40% of the 374 funded projects were at small- to medium-sized businesses, such businesses have received only $90 million, or less than 4% of the Ministry's total direct business support program funding between the Funds' inception and May 31, 2015.

Various expert reports have noted the potential of such businesses to strengthen the Ontario economy, with overall contributions by small- and medium-sized businesses accounting for about one-third of the province's annual GDP. For example, the 2014 *Ontario Made* report by the Mowat Centre notes that smaller, high-growth entrepreneurial firms add value to the economy and account for a significant share of job creation. The report states that small- and medium-sized businesses in Ontario's manufacturing sector, for example, account for 58.3% of all employment. Most of the support to small businesses is through the income tax system, which is not directed at specific businesses or industry sectors. We also noted that the Jobs and Prosperity Fund's Strategic Partnership Stream can provide support to small- and medium-sized businesses as long as they are partnered with a large, well-established business.

While the Ministry has not assessed how many small- and medium-sized businesses lack access to economic development and employment supports, the 2014 *Report of the Expert Panel Examining Ontario's Business Support Programs* concluded that Ontario's business support programs favour "the largest and oldest companies, the companies least likely to be in need of support." The Report also observed that supports were "highly skewed" or not equitably distributed, with over 30% of funding going to larger, older businesses, representing fewer than 1% of all businesses in Ontario. Furthermore, the Report's analysis showed "that in 2011-12, total support for companies less than two years of age was about $0.2 billion, while total support for companies 10 years of age or older was $1.9 billion." Finally, the Report concluded that "support for high-potential young companies is especially important because such companies may grow to be critical to the province's economic performance and quality of life."

4.1.6 Framework Does Not Facilitate Integration of Other Ministry Programs

The government's Framework does not address the impact of electricity rates in the province; nor does it integrate the activities of the Ministry of Training, Colleges and Universities, the Ministry of Research and Innovation, the Ministry of Northern Development and Mines, the Ministry of Agriculture, Food and Rural Affairs, the Ministry of Finance, or the Ministry of Citizenship, Immigration and International Trade, which oversees the impact of immigration. This undermines the Framework's relevance and usefulness, but the Ministry had no plan to address this.

The Ministry of Training, Colleges and Universities is not included in the Framework, even though education-related programs are relevant to the Framework's success. Education was a primary focus of the Premier's Committee that established the Framework, and strategic partnerships with universities were identified as one of the key measures to ensure the establishment of industry clusters.

However, the Framework does not specify how it will integrate universities and other educational facilities. The Drummond Report noted that several ministries administer economic development programs that include a training component, and recommended the government develop a "labour-market policy framework to link planning for employment and training services more strongly to economic development initiatives led by ministries such as Economic Development and Innovation; Agriculture, Food and Rural Affairs; and Northern Development and Mines." We noted the Ministry had taken no action on this recommendation.

Furthermore, employment, training and apprenticeship programs of the Ministry of Training Colleges and Universities were not included in the Framework, even though these directly affect employment and labour-force skills in Ontario. The labour force is also impacted by immigration policies of the Ministry of Citizenship, Immigration and International Trade, and the Framework makes no mention of the impact of new immigrants to the Ontario economy and how they can support further economic growth.

While the ministries of Research and Innovation and Economic Development, Employment and Infrastructure both focus on innovation and economic prosperity, their programs are not linked. In 2011, the then Ministry of Economic Development and Trade was combined with the Ministry of Research and Innovation to form the Ministry of Economic

Development and Innovation in recognition of their similar responsibilities. However, in 2013, the Innovation and Economic Development components were again separated into two distinct ministries.

The Ministry of Finance sets the rules on corporate income tax credits that may be claimed by corporations for particular types of economic activity, such as research and development. However, the Framework does not include consideration of such policies as part of a comprehensive strategy for providing supports to businesses.

The current Framework makes little mention of the Ministry of Research and Innovation, and there is no groundwork for integration of this ministry's funded programs. For example, the Ontario Centres of Excellence works with industry and academia to create new jobs and businesses, and the Ontario Network of Entrepreneurs facilitates entrepreneurship efforts by centralizing the programs to support a new business.

Electricity rates significantly impact the competitiveness of operating certain businesses. In this regard, the Ministry of Northern Development and Mines administers an electricity rate relief program for businesses in northern Ontario as an economic development activity. Consideration of how electricity rates can be used to support economic development is not addressed in the Framework.

RECOMMENDATION 1

To foster the best use of government funding to help businesses succeed within a prosperous Ontario economy, the Ministry of Economic Development, Employment and Infrastructure should develop a comprehensive strategy for economic development and employment programs that:

- establishes and publicly communicates targets by sector and geographic region to enable an evaluation of the effectiveness of the funding it provides;
- considers the benefits of financial supports for small- and medium-sized businesses;
- identifies and develops strategic partnerships between stakeholders such as universities, manufacturers and suppliers, and centres of excellence to leverage their expertise and help further promote and develop effective industry clusters; and
- integrates the activities of other key ministries responsible for areas that impact on the economy, such as training, research, agriculture, northern Ontario development, corporate income tax, immigration and electricity rates.

MINISTRY RESPONSE

We agree. MEDEI, in partnership with the Premier's Business Advisor, is leading the development of an industrial competitiveness strategy for the province, which includes a cross-sectoral approach to economic growth. Key recommendations are expected in Spring 2016.

While MEDEI currently does not set targets for regions or sectors, the 2014 Ontario Budget established a set of clear goals for 2025 to guide economic development policy, including macroeconomic goals for productivity, exports, and venture capital investment. The 2025 goals support the government's plan to build Ontario up. The four-part plan includes investing in people's talents and skills, making the largest investment in public infrastructure in Ontario's history, creating a dynamic, innovative environment where business thrives, and building a secure retirement savings plan. The Ministry will seek to identify and incorporate additional targets reflecting our goal of supporting a dynamic and innovative economy.

The southwestern and eastern regional development funds provide funding to many small and medium size businesses, although most funding is provided to large businesses. Direct business support funding is just one of many tools available to support small- and medium-sized businesses. In addition to business support programs, MEDEI and other ministries provide support to business through instruments such as business advisory services (MEDEI), small business tax deduction (MOF), Education and Training programs (MTCU) and Entrepreneurship and Commercialization programs (MRI). To ensure the proper mix of businesses is supported by this Ministry, the Ministry will conduct an evaluation of the sizes of business funded, along with considering other available supports from all levels of government to businesses. It is expected that this evaluation will allow us to further target our funds and business supports to those businesses that will leverage the most benefits to the economy.

The *Partnerships for Jobs and Growth Act, 2014*, came into force on April 1, 2015 and sets out a legislative process for government to meaningfully collaborate with industry on sector cluster planning. The Ministry is supporting the implementation of the Act, including development of an assessment framework to identify competitive clusters and set out cluster guidelines, and will be introducing a pilot cluster development seed fund that will enable consortia to network and undertake foundational research to help determine where cluster competitiveness strategies should be developed. The assessment framework will include consideration of the benefits of establishing linkages early in a project between businesses and support organizations, such as universities and business development organizations, to help ensure projects are successful.

The Ministry has made recent progress co-ordinating economic development activities with other ministries on sector priorities and plans to further co-ordinate with other ministries as the new Strategic Framework and Jobs and Prosperity Fund are fully implemented over the next year or so. The Ministry supports that the Strategy will be more effective with greater co-ordination and involvement with other key ministries that impact the economy, and the Ministry will be taking the lead to forge these linkages in the Strategy. Some progress in integrating the activities of other ministries has been made already. For instance, the new Jobs and Prosperity Fund currently or will be managing and co-ordinating the program administration for some programs of three other ministries: the ministries of Natural Resources and Forestry, Agriculture, Food and Rural Affairs, and Research and Innovation. The approval process includes representation from all ministries which provides for greater communication, discussion and co-ordination of economic development priorities. In addition, MEDEI is working with other ministries to assist with their sector priorities. For example, MEDEI recently supported the Ministry of Northern Development and Mines to attract a company willing to bring new jobs to the north with the support of government.

4.2 No Lead Appointed for Economic Development and Employment Programs Across Ontario

No government lead was appointed to take responsibility for the delivery of economic development and employment programs in Ontario. We expected that the Ministry of Economic Development, Employment and Infrastructure (Ministry) would have the authority to oversee all ministries' funding intended for economic development and employment purposes, but it only has authority for the programs it manages directly. However, even though the Ministry provides most direct funding in these areas, other ministries and agencies offer many other similar programs. These include the Ministry of Agriculture, Food and Rural Affairs' Rural Economic Development program, the Northern Ontario Heritage Fund Corporation of the Ministry of Northern Development and Mines, and several Ministry of Training, Colleges and Universities programs (see **Appendix 1** for a full list). We did note, however, that the Ministry has taken the initiative to increase its leadership and co-ordination role for business support program delivery when it co-ordinates with other ministries.

The Drummond Report observed that "Ontario's hodge-podge of direct and indirect [business support] programs is fragmented and lacks clear and coherent objectives." Furthermore, while the Ministry's Framework is described as an "all-of-government approach," it does not delegate responsibility for ensuring a co-ordinated approach to all economic development and support programs. Instead, each ministry and government organization will continue to make its own decisions on economic-development and employment-support funding.

The 2011 *Cross-Ministry Support to Ontario Businesses Final Report* noted a trend in other jurisdictions toward consolidating program delivery resources and using a lead agency working with third-party organizations. For example, the report observed that Michigan consolidated its economic-development initiatives under the Michigan Economic Development Corporation. While no Canadian provinces had created a separate entity along these lines, Alberta, British Columbia and Nova Scotia have advisory councils on economic policy. Ontario has no such council, and the Ministry has never had an advisory council or official advisors on the economy. However, a Premier's Business Advisor was appointed in June 2015 to provide advice on a strategic framework and a cross-sectoral approach to growing the economy, as well as recommendations on how the government can help the province move toward a more knowledge-based economy. Key recommendations are expected by spring 2016.

4.2.1 Government Program Delivery not Fully Co-ordinated

As noted in **Appendix 1**, various ministries offer separate economic development and employment programs. However, these are delivered without any overall co-ordinating information about what individual businesses, areas of the province, or sectors receive funding. For example:

- Programs of the ministries of Agriculture, Food and Rural Affairs, and of Northern Development and Mines, both offer grants and loans for economic development. While the Ministry and these two may informally discuss potential overlaps in funding, there are no formal processes to ensure a provincially co-ordinated effort, and the Ministry had no way to readily determine if other government funds were being provided.
- The Ministry has a mandate to cover all of Ontario, but has only ever funded one project in northern Ontario (in 2008). The Ministry indicated this is because most northern companies are too small to qualify for the larger ministry funds, but it could not provide us with a list of all potential eligible northern candidates (the Northern Ontario Heritage Fund Corporation does provide funding for smaller projects). Furthermore, the Ministry has done no assessment of the benefits of funding companies in the north as compared to the south. Also, one local chamber of commerce in northern Ontario told us that when it reached out to the Ministry for help to develop their local economy, it was told to contact instead the Ministry of Northern Development and Mines. This chamber of commerce expressed concern that the northern economy is being lost in the overall economic development picture.
- The Ministry has not assessed its own job-creation efforts in relation to similar ones offered by the Ministry of Training Colleges and Universities to determine how the programs could be co-ordinated to raise employment in high-need areas. Similarly, it has not co-ordinated its employment efforts with the immigration activities of the Ministry of Citizenship, Immigration and International Trade to, for example, ensure that the skills of

new immigrants match those identified by the Ministry as needed for economic development.

- Certain government initiatives, such as the clean/green technology initiatives, involve more than one ministry. However, once a project has been approved, the Ministry of Economic Development, Employment and Infrastructure is usually the only one that continues to be involved with it. This lack of co-ordinated approach can result in project failures. For example, the Ministry approved a project to build small wind turbines for residential use in 2009, awarding a grant of $2.7 million over five years under the Next Generation of Jobs Fund. This type of clean/green technology was new to Ontario, and a third-party expert warned the Ministry of risks such as legal and regulatory constraints on placement of turbines atop residential buildings. For example, the company indicated it set up operations in Ontario because the provincial government promised to establish a subsidized market for small wind technologies to help develop demand for the wind turbines. However, there was no evidence on file that the Ministry of Energy provided any support to help this project succeed, either at the approval stage or during the first three years of operation, and no subsidized market was established. Consequently, three years into the project, and after having received $2.25 million in funding, the company notified the Ministry that it was leaving Ontario and abandoning the project due to limited sales. The company ceased operations in 2013 and the Ministry recovered no money.

The Ontario government has reorganized its oversight of economic development and employment programs seven times since 2002. At various times, it combined these programs with ministries that also include trade, tourism, research and innovation. At present, they are combined with infrastructure spending. We noted that no other province currently has integrated government responsibilities in this manner; other provinces either had stand-alone economic ministries (Saskatchewan, Alberta and Manitoba), or linked economic development and employment support programs with tourism (British Columbia), or innovation and exports (Quebec). A more stable ministry structure would likely have helped the Ministry to develop long-term plans, and relationships both within and external to government, and measure performance, which would support better co-ordination and promotion of the direct to business support programs.

4.2.2 Some Program Overlap Exists

The *Cross-Ministry Support to Ontario Businesses Final Report* of 2011 also observed that there is overlap among Ontario funding programs, particularly regionally based ones.

The Rural Economic Development Program of the Ministry of Agriculture, Food and Rural Affairs, for example, had similar objectives, such as modernization of older legacy industries, to the Advanced Manufacturing Investment Strategy and the Southwestern and Eastern Ontario Development Funds of the Ministry. While the Advanced Manufacturing Investment Strategy stopped accepting applications at least five years ago and continues to monitor unfinished projects, the Ministry has not evaluated the overlap between the ongoing Rural Economic Development Program and its Southwestern and Eastern Ontario Development Funds. Each of these three funds had annual expenditures of $15 million or more.

Lack of Information About the Impact of Corporate Tax Credits

Corporate income-tax credits can be a significant source of provincial government support to businesses. In 2014/15, there were 17 types of corporate income tax credits available to businesses that cost the province $2.9 billion in forgone tax revenues.

Both the Drummond Report and the Expert Panel questioned the effectiveness of corporate income tax credits, with the Drummond Report recommending the government phase out all refundable corporate income-tax credits and place the resultant tax expenditure savings into a single envelope to fund business support programs. The Expert Panel noted specific effectiveness issues: compared to "peer jurisdictions, Canada and Ontario already rely heavily on R & D tax credits, and yet exhibit low levels of business expenditures on R & D."

The Auditor General of Canada's spring 2015 report entitled Tax-Based Expenditures recommended that the federal Department of Finance conduct systematic, ongoing evaluations of all tax-based expenditures, including tax credits. The report noted that tax expenditures have not been subject to strategic review, and recommended evaluations of tax-based costs to determine the most effective and efficient way to meet policy objectives and deliver outcomes. We noted that Ontario's Ministry of Finance is currently reviewing corporate tax credits to determine the changes needed to improve effectiveness and achieve better outcomes. In particular, it is reviewing several corporate tax credits to eliminate duplicate support for the same activity. In July 2015, the Ministry of Finance advised us that it was in the process of obtaining preliminary feedback from other affected ministries that provide grants or loans to businesses, such as those listed in **Appendix 1**.

4.2.3 Separate Government Funds Lead To Unco-ordinated Approach

Both the Drummond Report and the Jobs and Prosperity Council recommended in 2012 that all government support funding should be combined into a single Fund. This would allow for a more co-ordinated approach, and enable easier oversight of economic development and employment programs.

The Ministry of Economic Development, Employment and Infrastructure began working with the Ministry of Agriculture, Food and Rural Affairs on the Food and Beverage Stream of the Jobs and Prosperity Fund in January 2015. However, no other ministry or government program funds were discontinued or rolled into the Jobs and Prosperity Fund. Rather, when the government introduced the Jobs and Prosperity Fund two years later, the fragmented approach to economic development and employment support program administration remained unchanged.

A 2013 report by the Ontario Chamber of Commerce and the Mowat Centre noted that businesses are still confronted by a "hodge-podge of direct and indirect programs," and that "governments need to better co-ordinate their activities and resources to attract large-scale investments in Ontario." The Ministry indicated that most direct business-only programs have been brought under its management. However, we noted programs administered by the Northern Ontario Heritage Fund Corporation of the Ministry of Northern Development and Mines, and the Rural Economic Development Program of the Ministry of Agriculture, Food and Rural Affairs both still offered economic development programs to businesses, as well as to municipalities, universities, and non-profit agencies.

RECOMMENDATION 2

To ensure appropriate oversight and co-ordination of economic development and employment funding, the Ministry of Economic Development, Employment and Infrastructure should seek to become the lead ministry responsible for overseeing and achieving a comprehensive provincial strategy for economic development and employment programs and corporate income tax incentives for businesses.

MINISTRY RESPONSE

The current model for delivering economic development programs is decentralized with several ministries each delivering programs, and the Ministry agrees that overall co-ordination of economic development and employment programs can lead to earlier success or better results, and greater integration and co-operation. The Ministry will discuss with its partner ministries the benefits of it becoming the lead responsible for overseeing and achieving a comprehensive provincial strategy for economic development and employment programs, including tax expenditures for businesses.

4.3 Lack of Centralized Administration Results in Inefficiencies

In addition to making decisions on funding for economic development and employment support, each ministry and government organization maintains its own staff to review applications for funding, monitor contract deliverables, and process and track payments and budgeted costs.

The Drummond Report, the Jobs and Prosperity Council, and the more recent Expert Panel Report all noted the inefficiency of this approach, and recommended one back office for all support programs.

The Jobs and Prosperity Council, for example, noted that the current system is "cumbersome" and drives up administrative costs. The Drummond report said that "a single, shared back-office would support all ministries in the delivery of their business assistance programs to eliminate duplicated functions" and that they could "retain lead responsibility for current clients, but centralize their contract administration and payment processing in one branch." The Drummond Report also referred to the Ministry's merger with the Ministry of Research and Innovation as a step towards a public service that is better able to deliver business assistance programs, and that it should achieve efficiencies by consolidating the processing of transfer payments. However, this merger was reversed in a 2013 government restructuring.

The Ministry indicated that it is moving towards a more centralized process for back-office functions for the Jobs and Prosperity Fund. However, we found most of the administrative processes supporting the various economic development and employment programs continued to be delivered separately across the government. The total funding provided to businesses and organizations by other ministries was approximately $1.8 billion, and these ministries incurred costs of about $80 million in the year ended March 31, 2015, to administer these programs.

4.3.1 Ministry Unable to Track Other Government Funding or Corporate Income-tax Incentives to Recipients

The Ministry has incomplete data on how much grant and loan funding and refundable corporate income-tax incentives have gone to recipients from other ministries and agencies, or from other levels of government, which can lead to inefficiencies. Businesses are required to indicate on their applications if they are getting other funding from any of the three levels of government. However, the Ministry has no way to verify this information without contacting the other organizations. Businesses are not required to indicate if they are in receipt of or eligible to receive provincial refundable corporate income tax credits, which are paid to corporations that incur qualifying expenditures for certain types of activities, such as training and research and development.

The Ministry maintains the eCRM information system to track economic development and employment projects. The system includes recipient and contract details, and actual project results, such as the amount invested by the recipient. However, none of the projects from other Ministries are captured in this system. Consequently, ministry staff cannot readily determine whether an organization applying for support is already getting funding from a government, or has gotten it in the past.

On the other hand, the Ministry has made progress in sharing its information system. Starting in early 2015, the Ministry granted access to eCRM to the Ministry of Agriculture, Food and Rural Affairs to enable them to enter and access project information for the Food and Beverage Growth Fund stream of the new Jobs and Prosperity Fund.

Because funding is provided to many different industries, including energy production, information technology, food manufacturing and pharmaceuticals, ministry staff are required to determine which other ministry might have provided funding. They then need to identify a contact person at the other ministry and email or call to ask about a particular company.

The Ministry did not have any policies on standard methods of communicating with other ministries (for example, by email or phone call) or even a list of staff at other ministries to contact. For our sample of projects, there was documentation in only about 45% of the cases indicating that another ministry was contacted when it made sense to do so. However, had all grants and loans been accessible on one system, ministry staff would have been able to instantly access the required information.

Despite the significant amount of project costs that may be recovered through corporate income tax incentives, we found only one case in our review where the Ministry considered corporate income tax credits as a potential source of project funding prior to contracting with a recipient. In all other cases, there was no evidence that the Ministry had considered the amount of tax credits that a recipient would be eligible to receive when calculating an appropriate amount of grant or loan funding.

The Ministry needs to be aware of all sources of government funding available for a given project, whether it be grants, loans or tax credits. This information can be used to support an informed determination of the amount of grant or loan that is needed for the project, and also helps ensure the recipient has invested enough in the project to be fully committed to ensure its success by also putting its own funds at risk.

We reviewed the corporate income-tax credits claimed by businesses over the five years from 2010 to 2014, and found that for two-thirds of the projects we sampled, recipients also received refundable income-tax credits—that is, a refund for certain eligible expenditures incurred, similar to a grant. We noted that between 2010 and 2014, these recipients received corporate income tax-credit refunds ranging from $15,000 to $3.5 million. The Ministry does not have information on the amounts of corporate income tax credits the companies were able to claim from Ministry-funded project expenditures. But it did indicate that tax-credit information and determining whether corporations' are eligible for tax credits would be useful to help it make decisions about funding allocations.

Lack of Unique Business Number Weakens Ability to Track Funding

A further obstacle in tracking funding by recipient is the lack of a unique business number. Businesses may apply for support funding under their business name, corporate name, a parent corporation name, or a subsidiary name. As businesses may move their administrative offices around the province, it can be difficult to conclusively match up businesses by name or address alone. The Ministry of Finance's Expert Panel Report remarked on the difficulties inherent in this matching process as the greatest challenge in conducting their review. In particular, it recommended the use of a unique company identifier, "possibly the Business Number assigned by the Canada Revenue Agency, to facilitate the matching of multiple records that pertain to a single company."

RECOMMENDATION 3

To ensure direct-to-business support funding is administered efficiently and cost effectively, the Ministry of Economic Development, Employment and Infrastructure should seek government approval to take on the responsibility to centralize the back-office administrative functions of all other ministries that provide direct-to-business support. It should also work towards ensuring all businesses have a common unique identifying number that is used throughout government to allow for tracking of government support by various ministries.

MINISTRY RESPONSE

The Ministry agrees with this recommendation and currently provides back office administrative functions for other ministry programs and will seek to further realize the benefits of an enterprise-wide service delivery model. The Ministry currently supports programs for MEDEI, MRI, OMAFRA, and MNRF.

The Ministry is developing an IT solution that will enable onboarding of programs for other ministries. This solution will provide better tracking, co-ordination and information about business support recipients and benefit all ministries engaged in economic development activities.

RECOMMENDATION 4

To ensure an appropriate amount of grant and loan funding is calculated for each project, the Ministry of Economic Development, Employment and Infrastructure should take measures to ensure program staff are aware of all sources of government funding available for a given project, including corporate income tax credits, and consider these amounts when determining grant or loan funding.

MINISTRY RESPONSE

The Ministry agrees that program staff need reliable and complete information on the actual and potential sources of funding business have available to them for new projects. While the Ministry program staff are aware of the various sources of funds available to businesses, there is often limited means for validating all potential funding sources for a particular project, particularly corporate tax incentives. The Ministry will work with MOF to find tools that will enable staff to become aware of other funding sources. Contracts with funding recipients already have penalties and claw back provisions should the Ministry learn that a company has not disclosed a significant other source of funding for the project.

4.4 Administration and Oversight of Ministry Programs

We noted that the Ministry generally performed well with respect to the approval process in the administration and oversight of economic development and employment support programs.

All of the projects we reviewed received approvals from the appropriate level of senior ministry management. Project files and documents, such as signed application forms, final assessment forms, and funding contracts, were generally complete and properly stored on the Ministry's computer network.

In instances where the recipients did not meet contract job targets, we noted that the Ministry was diligent in its efforts to recover funds, usually by reducing the amount paid to recipients in subsequent disbursements. Finally, the Ministry consistently ensured that the required final audit reports were provided by recipients upon project completion.

However, we noted other systemic issues, including the lack of transparency in the decision-making process that awards grants and loans, the process by which the Ministry determines how much to award to recipients, and ways the Ministry ensures that the benefits to the economy are adequately and accurately measured, and reported to the public.

4.4.1 Invitation-based Funding Approach Needs Greater Transparency

An impediment to businesses accessing funding is the fact that most of the Ministry's recent economic development and employment support programs, including the Strategic Jobs and Investment Fund and the Jobs and Prosperity Fund, are "invitation-based." This means they are not available to the general public; instead, the Ministry invites companies to formally submit a funding application. Consequently, approximately 80% of total funding approved by the Ministry since 2010 has been based on an unclear process for selecting applicants.

The Ministry reported to Treasury Board in November 2014 when it was establishing the Jobs and Prosperity Fund that it could lower Fund costs compared to similar programs (such as the Next Generation of Jobs Fund) and leverage higher levels of private investment by using the invitation-based approach, and that this approach demonstrates the best value for money in terms of leveraging new investment in the province.

However, it is our view that this approach lacks transparency, fairness and equitable access for the businesses that may want to apply for funding, and increases the risk that the Ministry may not identify all suitable and qualifying businesses when it selects those businesses it invites to submit applications. We also noted that the Ministry's evaluation of program costs that indicated the invitation-based approach was the best value essentially compared application-based programs that had defined funding criteria (such as maximum dollars awarded per project) with the only invitation-based program it had used (the Strategic Jobs and Investment Fund), that also had no funding criteria established, which provided the Ministry complete discretion in the amount of grants or loans it could award.

Furthermore, we noted the Ministry's invitation-only approach lacked other essential elements of accountability in that the Ministry could not support the process it used to identify and select Fund recipients. For instance, the Ministry could not provide selection criteria or otherwise provide a list of companies invited to apply for funding. Additionally, the Ministry does not maintain a list of the businesses rejected for funding, or those that withdrew their applications. As a result, we were unable to review the number of applicants or reasonableness of the process that lead to applications being rejected or withdrawn.

We also noted that the largest funding commitment made in the last 10 years, a $264 million grant approved in 2009 and payable over 10 years to cover 35% of a company's investment to establish video game operations in Ontario, was funded under the open application-based Next Generation of Jobs Fund. However, the Ministry invited the company to apply for the grant without having to make a formal application.

The Ministry's submission to the Treasury Board indicated the company would invest $800 million, including the establishment of a production studio in Ontario, and create "employment of approximately 800 highly skilled, highly paid individuals in Toronto."

The Ministry indicated that, while consideration had been given to this company applying for the Ontario Interactive Digital Media refundable corporate income tax credit instead, there was no evidence that the Ministry had determined whether the company would have been eligible for this refund. The Ministry decided that it would, as an alternative, offer the company funding under the Next Generation of Jobs Fund, even though the project did not meet the Fund criteria and would therefore need Treasury Board approval for the exemption. The project was approved by the Treasury Board following Ministry negotiations with the recipient over the length of the contract and the amount to be funded, even though the grant exceeded the Fund's limit of a maximum 15% of eligible project costs.

We also noted that the Ministry's third-party expert recommended against approving the project because it contained no technological innovation, a key Fund requirement. Moreover, the terms of the contract did not set any performance targets, such as employment or project milestones, and payments to the recipient were based solely on the recipient making investments of its own and remaining in Ontario.

We noted that all the Ministry's contracts with other recipients made funding contingent on the recipient meeting specific job creation targets, and included provisions to reduce future payments if it failed to meet the targets. As of May 31, 2015, the project was still ongoing and the Ministry had disbursed $42 million for the project based on the recipient reporting it had spent $106 million and created 322 jobs. Notwithstanding these results, we felt that the Ministry assumed a high degree of risk with less assurance of benefits for the economy by not establishing job targets and project milestones in the contract, especially since it was providing higher levels of funding compared to any other funded project.

RECOMMENDATION 5

The Ministry of Economic Development, Employment and Infrastructure should consider adding greater transparency in accepting applications from all qualifying businesses. Such an approach could entail publicly communicating information on Funds to the general public, associations, and targeted industries to ensure that all qualifying businesses are aware of the programs. It should then use a fair and consistent process for selecting businesses to provide funding based on the merits of the applications, and ensure that the process used is clearly documented.

MINISTRY RESPONSE

The Ministry agrees that businesses that qualify for support funding should be considered for funding support. In the past, the Ministry has been cognizant that advertising these funds could create a mistaken expectation that these supports are available to all companies with little discretion. Given the limited funds and staff resources available, MEDEI has chosen to use an invitation based approach that has a rigorous evaluation process which is consistent in application and fair in awarding support. Notwithstanding, the Ministry agrees that better record keeping was needed to demonstrate how businesses are selected for the invitation only approach and those companies that were considered but were unsuccessful.

The Ministry will assess how it can improve its application intake processes for making qualifying business more aware of funding supports available, such as more targeting of select business associations for disseminating program availability information, and how its processes can be perceived as more open and transparent to applicants.

Ontario is engaged in a fierce global competition to attract new strategic investments. None of these competitors provide a significant level of detail around their support programs simply because it would provide their competitors (including Ontario) with an advantage when negotiating with companies. For similar reasons, the flexibility of Ontario's invitation-based approach is often necessary to attract strategic investments.

4.5 Ministry Did Not Establish Whether Recipients Actually Needed Help

In assessing applications for funding, there was no evidence that the Ministry considered whether a loan, which costs less, would have sufficed in place of a grant. Because the Ministry does not determine an applicant's actual needs, there is a risk that funding is being provided unnecessarily.

For most funds we reviewed in the past five years, a needs assessment was not part of the assessment process. Consequently, in over 99% of these projects, there was no documentation to indicate that government help was required to support the proposed projects. Even for the older Ontario Automotive Investment Strategy, which specifically required a needs assessment, only three of the 10 projects approved explicitly indicated that the project was contingent on ministry funding.

While the Ministry indicated in some cases that funds were provided to ensure the company chose Ontario over another jurisdiction, this risk was not documented for any of the projects we reviewed.

4.5.1 Projects Would Have Gone Ahead Anyway

Similarly, there was no evidence that financial support was needed to fund the projects for the smaller regional programs. In one case, a manufacturer was approved for a $1 million grant in 2013 to install a new $14 million production line, even though there was documentation on file saying "it appears the project will move ahead regardless of the Southwestern Ontario Development Fund support."

One of the companies we interviewed received a grant of more than $800,000 to implement a new, $16 million production line. The project manager indicated that the company's Board of Directors had already approved the project prior to the application for funding. Evidence on file also indicated that the Ministry knew the applicant was a subsidiary of an established international company that would have supported the project even if the Ministry didn't provide the grant. Our review of the Ministry's assessment form indicates that this grant was not provided based on need, but rather because the funding was "important to the investors to provide confidence to remain in Canada."

As a result, we question whether the funding provided to this company would have been more productive to the economy had it been instead awarded to another company's expansion project that would not have proceeded without financial assistance.

The issue of financial support to companies that may not need it was further emphasized in a 2015 report by the Institute for Competitiveness and Prosperity that warned that "jurisdictions need to be careful [because] there have been cases where firms have been offered large incentives, when they were planning on locating in the particular jurisdiction even in the absence of such a deal."

We were advised by the Ministry that going forward with the new Jobs and Prosperity Fund, evaluation criteria will include more focus on whether a project would not happen without government support—in other words, whether government funding is actually needed.

RECOMMENDATION 6

In ensuring that business support funding is allocated to companies that need it and have the largest impact on growing the economy, the Ministry of Economic Development, Employment and Infrastructure should establish evaluation criteria that better assesses whether funding for projects is needed in order for the project to proceed.

MINISTRY RESPONSE

The Ministry agrees that decisions in the past to approve funding under its older legacy Funds could have better documented the reasons why funding was provided. The new Jobs and Prosperity Fund has introduced a comprehensive scorecard as part of its assessment process which the Ministry believes will address the auditor's recommendation. This evaluates the incremental impact of the proposed investment and the need for government support.

The scorecard seeks to identify projects that will have the largest impact on growing the economy, including evaluating contributions to productivity, innovation and new market access, which provides guidance on which projects should be supported and at what level.

The scorecard includes a Return on Investment (ROI) analysis that evaluates the cost of funding against expected returns to Ontario. The ROI is used as one factor to determine whether loan funding should be considered for projects.

Business support funding is offered to incent companies to invest, expand and innovate in Ontario. In some cases, the Province is also competing against other jurisdictions for strategic investments and must counter incentives offered by competing jurisdictions. As a result, funding may be offered to companies that may or not have sufficient resources for the project to proceed. The Ministry will ensure that decisions made to provide incentive funding are well documented as part of the approval process.

4.5.2 Ministry Does Not Consider Equity in Exchange for Funding

Regardless of whether a grant, a loan, or a combination of the two, is approved to support a project, the Ministry does not evaluate whether Ontario should receive an equity stake from the recipient, or otherwise share in the success of a project, in return for funding.

The cases of General Motors and Chrysler offer recent examples of the Ontario government receiving equity in return for providing assistance. In 2009, both companies were facing significant financial difficulties, and received $4.6 billion from the Ontario Financing Authority as part of a wider North American agreement that included the Canadian and U.S. governments. Over the period of 2010 to 2015, the Ontario Financing Authority recovered a total of $3.6 billion of its investment, about 70% of which was through equity considerations, with the remaining one billion dollars written off. Had the funding arrangements not included equity, the cost to Ontario could have been significantly higher.

However, the Ministry has not taken any shares or partial ownership in any business that it has funded; nor has it shared in patents or rights in exchange for financial support. While the Ministry funds most projects at a relatively small percentage compared to the recipient, which would not justify taking an equity stake, in some cases it funds projects at higher levels. For instance, the Ministry funded about 35% of one project and over 50% of another, but took no equity considerations in return. While other ministries and agencies have shared in some projects they helped fund, it was not evident in any of the projects we reviewed that Ministry staff even considered this type of arrangement during contracting.

RECOMMENDATION 7

The Ministry of Economic Development, Employment and Infrastructure should establish project evaluation criteria that identify circumstances where it should require equity in projects in return for funding.

MINISTRY RESPONSE

The Ministry will evaluate the circumstances, criteria, and benefits of offering funding in exchange for equity in a project. Most projects have a high leverage level, which means the amount the company invests is significantly higher than the amount the province invests. In these cases, the Ministry would not consider requiring any equity in the project. Projects requesting funding at higher levels may support a business case where the Ministry shares directly in the project benefits, or alternatively the Ministry sets higher expectations for project benefits to the economy.

4.6 Benefits of Support Programs Should Be Monitored, Reported On

As **Figure 7** indicates, most funds did not achieve as many jobs as originally committed to in the contracts for completed projects. In this regard, we also found that the Ministry was diligent in ensuring that funding was recovered when job targets were not met.

However, we noted systemic weaknesses in monitoring processes that needed to be addressed. One is the need for the Ministry to measure the impact of Ontario's economic-development and employment-support programs to ensure they are effective in generating benefits to the overall economy. Additionally, the Ministry does not publicly report on project results, and when the Ministry did report internally on the results of the funded projects, the underlying data was often incomplete, inaccurate, or overstated.

4.6.1 No Evaluation Done of Whether Programs Positively Impact the Ontario Economy

Other than measuring the specific achievements of employment targets and the amount of recipient investment that Ministry funding has leveraged, there is no evidence to suggest that the Ministry has evaluated or reported on the overall impact of the funded projects, or the effectiveness of its economic-development and employment-support programs on Ontario's economy.

For example, as noted earlier, the largest grant approved was $264 million in 2009 over 10 years for a video game company to come to Ontario. The grant covered the cost of furnishing and operating an office in Toronto, but no deliverables were stated in the contract. Ministry documents indicate that bringing this company to Ontario was considered an opportunity to build an industry cluster and increase Ontario's international profile.

However, in the five years that the project has been going, the Ministry never evaluated the impact of the project on the digital media industry or on the planned industry cluster development, even though $42 million has since been provided to the company.

The Ministry also does not measure how much of its funding to recipients goes to equipment or services purchased outside Ontario. This information is necessary to determine the impact of a project on Ontario's GDP. Any purchases of services or equipment outside Ontario reduces the benefits to the economy. We noted that for many the projects we reviewed, equipment or machinery was purchased from outside Ontario. The Conference Board of Canada has also noted the high rate of imported machinery and equipment by Ontario businesses, and that this has less impact on growing the GDP.

Given that the Ministry committed more than $2 billion to funding such programs since 2004, it should carry out an overall evaluation of the performance of the programs and their impact on the economy, and not just the number of jobs created or retained.

None of the contracts we reviewed required increases in exports or improvements in innovation or productivity, even though expert reports such as the Jobs and Prosperity Council's Advantage Ontario stressed the importance of such measures. For example, the Ministry should assess whether projects with an initial objective of increasing exports or creating an innovative product actually achieved those objectives.

Figure 7: Job and Investment Commitments, Results, for Completed Projects from 2004 to May 31, 2015

Sources of data: Ministry of Economic Development, Employment and Infrastructure

Recipient Job Commitments				
Funding Program	**# of Contracted Jobs**	**# of Actual Jobs**	**Variance**	**% of Contracted Target Met**
Advanced Manufacturing Investment Strategy	5,949	5,592	(357)	94
Ontario Automotive Investment Strategy*	35,147	22,228	(12,919)	63
Next Generation of Jobs Fund	7,695	9,307	(1,612)	121
Eastern Ontario Development Fund	14,879	11,846	(3,033)	80
Strategic Jobs and Investment Fund	7,814	10,162	2,348	130
Total	**71,484**	**59,135**	**(12,349)**	**83**

Recipient Investment Commitments				
Funding Program	**Contracted Investments ($ million)**	**Actual Investments ($ million)**	**Variance ($ million)**	**% of Contracted Target Met**
Advanced Manufacturing Investment Strategy	1,396	1,309	(87)	94
Ontario Automotive Investment Strategy	5,771	5,358	(413)	93
Next Generation of Jobs Fund	3,486	2,580	(906)	74
Eastern Ontario Development Fund	635	491	(144)	77
Strategic Jobs and Investment Fund	1,287	1,420	133	110
Total	**12,575**	**11,158**	**(1,417)**	**89**

* Projects funded by older programs, such as the Ontario Automotive Investment Strategy, were more likely to not meet job targets due to the 2008 economic downturn.

For two projects that we reviewed with total contract commitments of $340 million, both signed in 2014, the deliverables outlined in the contracts were to spend a certain amount of money and to either maintain or create a targeted number of jobs in the area of research and development. While the contracts both refer to increasing productivity and innovation in the form of new product development, there are no specific requirements to hold the companies accountable for these and no references to increasing exports as part of these contracts.

Additionally, the Ministry should evaluate the size of the return on its investment by, for example, calculating how much of the anticipated additional income tax the province actually collects from the new jobs created by the projects.

Our review of the Ministry's current monitoring and reporting processes identified the following areas as needing improvement:

Performance measures used by the Ministry are too narrow: None of the projects we reviewed included, for example outcome measures to assess the impact of its support programs in strengthening Ontario's economy. The Ministry should consider other measures to assess program performance, including the number of jobs created or retained by industry sector or region; changes in GDP; fluctuations in unemployment rates for the region; increases in exports; commercialization of new products or services; and increases in productivity of the recipient's processes. Performance measures included in contracts with recipients should link to measures used to assess performance of the Funds. We understand that the Ministry plans to introduce new performance measures related to productivity, innovation and exports under the new Jobs and Prosperity Fund. However, there are no current plans for introducing other broader economic measurements, such as changes in GDP or unemployment rates. Also, even though the Ministry measures the cost it has incurred to create or retain a job, it does not obtain any information on the salaries of employees hired under these projects, which is necessary to evaluate whether the funding provided to support a job was cost effective.

Ministry monitoring of project achievements does not extend beyond the contract term: The Ministry indicated it does no monitoring of projects after contracts expire, because it holds recipients accountable only for achieving investment and job targets during the term of the contract. In all but two of the projects we reviewed, none of the recipients was obligated to report on the job targets beyond the contract end date. As a result, it is uncertain whether the jobs created or retained during the contract term continued to exist afterwards. While the projects may be fully implemented, the Ministry should continue to monitor jobs created or retained for periods beyond a project's completion date to assess the long-term impact of the funding provided and the achievement of sustainable employment.

In addition to the suggested performance measures noted above, another possible measure of project success is return on investment of ministry funds. The Ministry began calculating return on investment in 2010 when assessing potential projects under the Strategic Jobs and Investment Fund. It compared the estimated increase in Ontario's income-tax revenues from newly hired employees of a project to the funding awarded the project. However, these calculations were only performed during a project's assessment phase, and were not updated to reflect actual results upon completion. Additionally, the return-on-investment calculation was never introduced to the Ministry's other support programs.

As a result of the above weaknesses in its monitoring and reporting processes, the Ministry is unable to conclude on whether its economic-development and employment-support programs are effective in ensuring sustainable benefits for Ontario. Many expert reports have also questioned the benefits of such programs to the economy, with the Drummond Report observing that "business support programs are fragmented and lack clear and coherent objectives," and "it is unclear whether the programs are achieving any economic benefits for Ontario."

RECOMMENDATION 8

In order to measure the success of its programs in strengthening the Ontario economy and achieving sustainable benefits, the Ministry of Economic Development, Employment and Infrastructure should:

- expand its current performance measures to include factors other than a project's investment and employment targets; and
- consider monitoring performance measures beyond the term of funding contracts to assess whether benefits to the economy continue after project completion.

MINISTRY RESPONSE

The Ministry agrees that a broader set of measures are needed to more fully assess the impact and effectiveness of economic development programs. More recently, the Ministry has been evaluating projects against factors other than jobs and investment. The new Strategic Investment Framework will ensure that all new applicants are measured against the Productivity, Innovation and Exports principles at the outset through criteria set out in the Jobs and Prosperity Fund's scorecard, which is a key part of the approval process. In this respect, all new projects to be funded under the Jobs and Prosperity Fund must support the productivity, innovation and exports objectives to receive funding. Reporting on these new performance measures will be part of the contractual commitments of the recipient.

The Ministry will consider what additional broader measures might be introduced to assess the full extent of impact that funded projects have had on the local and provincial economies.

The Ministry is aware that successful projects continue to provide benefits to the economy, such as job retention or creation, after project completion and agrees that it should consider ways to measure these continuing benefits as part of our continuous program evaluation processes. The Ministry will consider best to gather this information, either by making it a requirements in contracts with funding recipients to beyond the contract term, or to develop other possible means such as post evaluation surveys.

4.7 More Care Needed in Reporting Results Publicly

While the Ministry publicly announces newly contracted investment and job targets for most of its projects, it does not subsequently report their actual results. As a result, the public is unaware of the status of projects, or whether objectives were met.

New projects are usually announced at public events involving MPPs, and then through the Ministry's annual planning reports, published on its website. However, for approximately 60 projects with ministry commitments totalling over $70 million, no public announcements were made. The Drummond Report recommended greater transparency in this process, and suggested that the Ministry should publish a list of companies that receive government financial support, and how much they get.

We also noted the Ministry approved and announced a $10-million loan in 2006 to an Advanced Manufacturing Investment Strategy fund project. The recipient completed the project, achieving both job and investment targets in 2011 (though with no assurance that the jobs lasted past the end of the project since the contract did not require this), and was required to repay the loan by 2018. However, it repaid only $4.1 million of the loan. The Ministry wrote off the remaining $5.9 million in 2015, when it determined the company was no longer financially capable of repaying the remainder of the loan. The Ministry has not publicly updated the progress of the project or the expected cost to the province of the company's default.

We further noted that the Ministry's annual planning report normally announced jobs created without sufficient explanation of whether these were actual or planned targets. For example, the

2014/15 report notes the following regarding the Eastern Ontario Development Fund for the fiscal year ending March 31, 2014: "Since the Fund was established in 2008, the government has invested $70 million in 144 projects leveraging a total investment of approximately $683 million. These investments have created 2,987 new jobs." Our comparison of these figures to the Ministry's internal data indicates the following:

- The $70 million represents the total funding committed to the 144 projects by the Ministry, as per the funding contracts. As of the 2013/14 reporting period, total actual disbursements by the Ministry to these projects was approximately $45 million or 36% less than announced by MPPs and reflected in the annual planning report.
- The $683 million represents total committed investments by recipients as per funding contracts. As of the 2013/14 reporting period, total investments actually reported by the recipients was $434 million or 36% less.
- The 2,987 jobs represents total job creation commitments by recipients as per funding contracts. As of the 2013/14 reporting period, total actual jobs created by these projects was 2,538 or 15% less.

While the investment and job statistics in the annual planning report are all based on planned results, as opposed to actual achievements, neither this fact nor the actual results was communicated publicly. We understand that the new Jobs and Prosperity Fund will require that the Ministry report publicly each year on the status of business support programs, including actual results achieved to date.

We noted that the eCRM computer system used by the Ministry to track funded projects lacks certain functionality, including the ability to track actual data by year. This could be one of the causes of inaccurate or incomplete reporting.

Ministry staff compensate for the system's weakness by using it in conjunction with spreadsheets. In addition, because eCRM was not always accurately updated by Ministry staff, monitoring reports generated using system data were often inaccurate. In over half of the projects we reviewed, we noted errors in eCRM that would affect the accuracy of monitoring reports, including incorrect disbursement amounts or dates for site visits. Consequently, this could also affect the accuracy and completeness of the information reported to the public.

Finally, the government has not provided the public with complete information on how much funding it has actually allocated to economic development and support programs. Overall, it has over-stated its funding by more than $1 billion as follows:

- The Advanced Manufacturing Investment Strategy fund was announced in 2005 with estimated planned commitments of $500 million in repayable loans. However, only $223 million was actually committed to recipients up until 2010, and the fund is no longer accepting applications.
- The Next Generation of Jobs Fund was announced in 2008 with total funding of $1.15 billion. However, total commitments made under the fund by 2009 were only about $810 million and the fund is no longer accepting applications.
- The Jobs and Prosperity Fund was announced in January 2015 as a 10-year program with total funding of approximately $2.5 billion. However, the government transferred approximately $780 million of commitments previously announced under older programs into the Jobs and Prosperity Fund. Consequently, the total amount flowed under this fund will include $780 million of funding that was already included under other funds.

The Ministry indicated that it is a general practice to transfer funding between programs as new ones are introduced. We believe that over-stating available funding provides inaccurate information to the public regarding the extent of the government's investment in economic-development and employment-support programs.

RECOMMENDATION 9

To ensure that communications of project results to the public are accurate and complete, the Ministry of Economic Development, Employment and Infrastructure (Ministry) should publicly report on its website:

- all funding commitments and the names of all projects and companies contracted with, including clarifying whether announcements are duplicate to previous ones made; and
- accurate actual results for each project compared to commitments and targets previously announced.

MINISTRY RESPONSE

As part of the new Jobs and Prosperity Fund, the Ministry is assessing the various approaches available to providing the public with improved information on the funding support it provides to businesses. While we plan to continue to issue public news releases and reports that highlight details of specific projects and recipients as well as program commitments, the Ministry will consider what improvements can be made to ensure more accurate reporting going forward, and any enhancements that can be made to its public website.

Appendix 1—Economic Development, Business and Employment Support Programs Funding by Ontario Ministries and Agencies for the year ended March 31, 2015

Prepared by Office of the Auditor General of Ontario using data from Public Accounts of Ontario and selected ministries

Program Name	Description	Status of Program as of March 2015	2014–15 Actual Funding ($ 000)
Ministry of Economic Development, Employment and Infrastructure—Direct Business Support Programs			**130,500**
Strategic Jobs and Investment Fund	Attracts investment in leading-edge projects to build strategic capacity and create new, high-value-added jobs.	No longer accepting applications	24,783
Next Generation of Jobs Fund (includes Biopharmaceutical Investment Program)	Supports business expansion/retention and attracts foreign investment in sectors such as green auto research; clean fuel research, development and commercialization; and health technology. Biopharmaceutical Investment Program encourages brand-name pharmaceutical firms and advanced-stage human health biotech firms to establish research and development and/or advanced manufacturing in Ontario.	No longer accepting applications	19,501
Eastern Ontario Development Fund	Supports projects to create/retain jobs, encourages introduction of new technologies, assists private-sector firms, communities and sector groups to pursue growth in new markets, improve competitiveness, and contribute to the diversification of the eastern Ontario economy.	Active	6,230
Southwestern Ontario Development Fund	Supports projects to create/retain jobs, encourages introduction of new technologies, assists private-sector firms, communities and sector groups to pursue growth in new markets, improve competitiveness, and contribute to the diversification of the southwestern Ontario economy.	Active	12,731
Advanced Manufacturing Investment Strategy	Encourages companies to invest in leading-edge technologies and processes to increase productivity and competitiveness.	No longer accepting applications	37
Jobs and Prosperity Fund	Provides financial assistance to companies investing in projects related to productivity, innovation and exports to enable them to compete globally (new program introduced in 2015).	Active	67,218
Ministry of Economic Development, Employment and Infrastructure—Other Support Programs			**58,405**
Youth Support Programs	Programs, including Ontario Youth Entrepreneurship Fund, Youth Skills Connections Fund, Youth Partnerships, and Student Entrepreneurship Experience-Summer Company. Main goal is to support and encourage entrepreneurial spirit in future business leaders.	Active	26,750
Sector Support Grants	Provides ad-hoc grants to not-for-profit organizations for business and economic development, innovation and commercialization, sciences and research and/or trade and investment. Initiatives supported include research studies, conferences, business forums, and networking events.	Active	31,163
Communities in Transition	Assists communities and industry sectors facing economic development challenges such as plant closures, significant job losses, and industry-wide restructuring by providing flexible, customized assistance not available under other Ontario government programs.	Active	428

Program Name	Description	Status of Program as of March 2015	2014–15 Actual Funding ($ 000)
Investment Ready: Certified Site Program	Provides financial and international marketing support to public and private industrial land owners who successfully complete a set of requirements and due diligence on their property to ensure it is certified for development. The certified properties are used to attract investments to Ontario.	Active	64
Ministry of Aboriginal Affairs			**7,980**
Métis Economic Development Fund	Provides funding and support for Métis businesses. This fund was created pursuant to the terms of the Métis Economic Development Agreement with the Métis Voyageur Development Fund, Inc.	Active	3,000
Aboriginal Economic Development Fund	Assists Aboriginal communities in the development of long-term economic strategies, provides grants and financing for Aboriginal businesses, and supports province-wide and regional skills training and project financing. This program is under the authority of the Jobs and Prosperity Fund.	Active	4,980
Ministry of Finance			**500**
Grants in Support of Economic and Financial Services Policy Research	Three-year agreement with Toronto Financial Services Alliance to help implement a Financial Services Sector Strategy public-private partnership to improve competitiveness and growth of financial services sector.	Active	500
Ministry of Natural Resources and Forestry			**972**
Ontario Wood Promotion Program	Supports not-for-profit organizations and post-secondary institutions in education and research to expand markets for wood products, encourage the development of value-added wood products, and increase public awareness of sustainable forest management practices. Program also aims to foster a culture of wood use in Ontario through training for architects, engineers and other builders on innovative and effective uses of wood in construction.	Active	972
Ministry of Northern Development and Mining			**169,409**
Northern Industrial Electricity Rate Program	Helps Northern Ontario's largest industrial electricity users reduce their power costs, sustain jobs and maintain global competitiveness. The program offers a rebate on electricity expenditures based on 2 cents/kWh with a maximum annual rebate of $20 million per company.	Active	107,857
Northern Ontario Heritage Fund Corporation	Offers a variety of programs to support business productivity and expansion, and global investment in northern communities. Also supports development and commercialization of new technologies that will contribute to prosperity in Northern Ontario, and fosters collaboration and partnerships among the private sector, academic institutions, and research institutes.	Active	60,000
Small Business Enterprise Centre	Provides assistance to entrepreneurs and small businesses to start and grow their businesses in communities across northern Ontario. Eligible businesses are those with less than five years of operations and fewer than 10 employees.	Active	700
Vet Assistance Program	Promotes viability of the livestock industry by supporting provision of veterinary services to livestock producers in designated underserviced areas in northern and southern Ontario. Conditional grants are provided to offset travel, temporary service, and continuing education costs of participating veterinarians. The program is delivered in collaboration with participating producers and veterinarian associations.	Active	852

Program Name	Description	Status of Program as of March 2015	2014–15 Actual Funding ($ 000)
Ministry of Research and Innovation			**119,616**
Commercialization and Innovation Network Support	Provides programs and services to technology-based innovative entrepreneurs and firms to generate new business, companies, and jobs. Also provides educational and funding programs that focus on strengthening entrepreneurial talent, creating globally competitive businesses and support innovators throughout their process.	Active	59,929
Youth Job Strategy	Supports campus-linked industrial research, development, commercialization, and entrepreneurship by youth.	Active	26,000
Business Ecosystem Support Fund	Supports industry-academic partnerships to accelerate product development and sales in global markets, including green chemistry solutions, communication-enabled applications, digital media, mobile computing applications, and advanced medical assistive technologies.	Active	2,019
Ontario Emerging Technologies Fund	Supports innovative, high-growth companies with venture capital investments made in partnership with qualified investors.	Active	8,000
Grants in Support of Research and Innovation	Delivers approved commercialization programs and business development programs, and develops and implements a venture-capital strategy.	Active	7,970
Innovation Demonstration Fund	Supports emerging technology companies at the pilot- or demonstration-project stage, with focus on new bio-based, environmental and alternative technologies. Program put on hold in September 2013 and not accepting new applications.	On hold	10,000
Ontario Life Sciences Commercialization Strategy	Combines existing and new Ontario life sciences initiatives into a co-ordinated plan, and supports early-stage biotech firms, co-ordination of clinical trials and creation of an industry association.	Active	1,483
Small Business Enterprise Centres	Provides programs and services that support start-up businesses and growth in communities, including training and mentoring for entrepreneurs and small businesses.	Active	4,215
Ministry of Tourism, Culture and Sport			**97,843**
Grants in Support of Tourism Regions	Provides funding to 13 Regional Tourism Organizations, which are independent, industry-led, not-for-profit organizations with a mandate to enhance regional tourism development by collaborating with industry partners in marketing, product development, workforce development and investment attractions.	Active	38,971
Ontario Media Development Corporation Funding	Promotes, enhances, and leverages investment, jobs and original content creation in film and television, interactive digital media, music, and book and magazine publishing.	Active	22,990
Ontario Music Fund	Helps create jobs, builds on opportunities for growth in the music industry, and advances government's Live Music Strategy to position Ontario as a leading jurisdiction in which to record and perform music.	Active	15,000
Tourism Development Fund	Supports projects that generate economic benefits through increased tourism, visitor spending, investment, and improved customer service.	Active	758
Celebrate Ontario	Provides project-based funding to new or existing Ontario events to enhance programs, activities and services. Also supports innovations that will lead to long-term improvements, sustainability, and attraction of additional tourists.	Active	20,124

Program Name	Description	Status of Program as of March 2015	2014–15 Actual Funding ($ 000)
Ministry of Training, Colleges and Universities			**983,013**
Employment Training and Support Programs	Various programs assist Ontario residents with job training and opportunities. Financial supports also provided to businesses for apprenticeship programs. Employment Ontario program provides employment services to both employers and individuals seeking a job.	Active	983,013
Ministry of Agriculture, Food and Rural Affairs			**394,350**
Business Risk Management Programs	Comprehensive suite of federal-provincial-territorial Business Risk Management programs offers protection to farmers against severe market volatility and disasters. Core programs include: AgriStability, AgriInsurance, and AgriInvest. In Ontario, Agricorp,. an Ontario agency, administers AgriStability and AgriInsurance (also known as Production Insurance). AgriInvest is administered by the federal government. These programs are funded 40% provincially, 60% federally.	Active	77,500
Risk Management Program	Program allows Ontario producers to offset losses caused by factors outside farmers' control, such as low commodity prices and rising production costs. The program is funded up to $100 million per year, including administrative costs. It complements the Business Risk Management Programs funded jointly by the Ontario and federal governments.	Active	119,500
Horse Racing Transition Assistance Program	Helps racetracks transition to a new long-term funding model following the winding down of the Ontario Lottery and Gaming Corporation's Slots-At-Racetrack Program.	Active	100,000
Ontario Ethanol Growth Fund	Supports construction and operation of ethanol plants to help meet demand created by government ethanol regulations.	Active	25,718
Growing Forward	Helps farm, food and, agri-product businesses and organizations identify opportunities to grow profits and markets, and manage risks.	Active	45,222
Rural Economic Development and Local Foods	Rural Economic Development, established in 2001, helps diversify rural business climates; create/retain long-term jobs; develop co-ordinated local/regional approach to economic development; foster creation of alliances and partnerships; and develop tools and resources to enhance rural economic development. Local Foods, established in 2013, promotes local food as part of a broader strategy to strengthen Ontario's agri-food industry.	Active	23,561
Rural Summer Jobs	Helps rural employers create student summer jobs.	Active	2,859
Total			**1,962,546**

Appendix 2—Selected Recent Studies into the Ontario Economy

Prepared by the Office of the Auditor General of Ontario

Ontario Chamber of Commerce. (2015). *Ontario: Constraining Costs and Staying Competitive in the Electricity Market.*
The Chamber is an independent, non-partisan network that represents businesses across Ontario, as well as the province's 136 local chambers of commerce and boards of trade. This report examined trends for electricity prices in Ontario through consultations with key stakeholders, including sector experts, businesses and government organizations. The report includes recommendations for the government to help mitigate rising electricity costs in Ontario.

Ontario Chamber of Commerce and the Mowat Centre. (2015). *Emerging Stronger, Ontario's Path from Recovery to Growth.*
The Chamber and the Mowat Centre jointly publish the annual Emerging Stronger report, a five-year project aimed at spurring growth and prosperity in Ontario by providing clear and achievable recommendations to business, government, and the not-for-profit sector. The Mowat Centre, an independent public-policy think tank at the University of Toronto, is funded by the Ontario government.

Institute for Competitiveness and Prosperity. (2013). *Course Correction: Charting a New Road Map for Ontario.*
Institute for Competitiveness and Prosperity. (2015). *Open for Business: Strategies for Improving Ontario's Business Attractiveness.*
The Institute for Competitiveness and Prosperity, an independent, not-for-profit organization funded by the government of Ontario, has a mandate to increase public understanding of macro- and microeconomic factors behind Ontario's economic progress. It serves as the research arm of the *Task Force on Competitiveness, Productivity and Economic Progress*, announced in the April 2001 Speech from the Throne. *Course Correction* evaluates Ontario's progress as it seeks to increase its competitiveness and prosperity, and assesses whether it is meeting the Task Force's *Road to Prosperity 2020* goals set in 2001. *Open for Business* is based on research comparing Ontario to regional competitors to identify areas where the government should act to improve business attractiveness. The report aims to advise government on how to get the best return on investment for its new Jobs and Prosperity Fund, while improving long-term business conditions in the province.

Education, Skills and Economy Policy Committee. (2015). *Ontario's Strategic Investment Framework.*
In November 2014, a Strategic Investment Framework (Framework) was developed by the Education, Skills and Economy Policy Committee, composed of ministers and members of caucus appointed by the Premier. In January 2015, the government announced the Framework as the Ministry's new strategy. The Framework consisted of guiding principles for future economic development and employment investments that focus on productivity growth, stimulating innovation, and promoting exports. At the time of our field work in July 2015, the Ministry had not yet finalized any contracts under the new Framework.

Business Support Programs Review Panel. (2014). ***Report of the Expert Panel Examining Ontario's Business Support Programs (Expert Panel).***
The ministries of Finance and Economic Development, Employment and Infrastructure jointly appointed a panel of experts to review the province's business support programs. The report provided 26 recommendations to the Ontario government.

The Fraser Institute. (2014). ***Can Canada Prosper Without a Prosperous Ontario?***
The Fraser Institute is an independent Canadian public policy research and education organization whose mission is to measure the quality of life of Canadians by examining the effects of government policies and entrepreneurship on the welfare of Canadians. This report examined the influence of Ontario on Canada's economic performance as a whole.

The Commission on the Reform of Ontario's Public Services, commonly known as the Drummond Report. (2012). ***Public Services for Ontarians: A Path to Sustainability and Excellence.***
The report, written by economist Don Drummond, was intended to advise the government on how to reduce the province's debt. It provided recommendations on how to improve the value for money of a wide range of government programs, including business supports, transfer payments, corporate income tax credits, and employment and training services.

Jobs and Prosperity Council. (2012). ***Advantage Ontario.***
The Council, composed of 14 leaders from business, labour and other sectors appointed by the Premier, was asked to advise on the action Ontario needed to take to seize new opportunities. Its report included recommendations that centred on more international trade, increased productivity, and more innovation.

Ministry of Economic Development and Trade, now Ministry of Economic Development, Employment and Infrastructure. (2011). ***Cross-Ministry Support to Ontario Businesses Final Report.***
Produced by an external firm hired by the Ministry to assess the performance of direct business support programs by all ministries, the Report researched economic development initiatives in Michigan, New York, California, and Quebec, and provided an analysis of various options, such as the phasing out of programs with lower performance ratings across, and within, ministries.

Chapter 3

Ministry of Energy

Section 3.05 Electricity Power System Planning

1.0 Background

1.1 What Is Electricity Power System Planning?

Electricity power system planning involves managing the long-term demand for electricity and deciding how to meet that demand through various generation, conservation and transmission solutions:

- Generation—Ontario has a diverse mix of energy sources (called the "supply mix") including nuclear, hydropower, natural gas, wind, solar and bioenergy.
- Conservation—Ontario encourages consumers to reduce or shift consumption away from peak times and to use energy more efficiently, with the intent to avoid the need for increased electricity generation and to avoid or defer the need for significant investment in new electricity infrastructure.
- Transmission—Ontario's transmission system moves electricity at high voltages over long distances, from generation sites to the local distribution companies who deliver electricity to consumers.

1.2 Key Players Involved

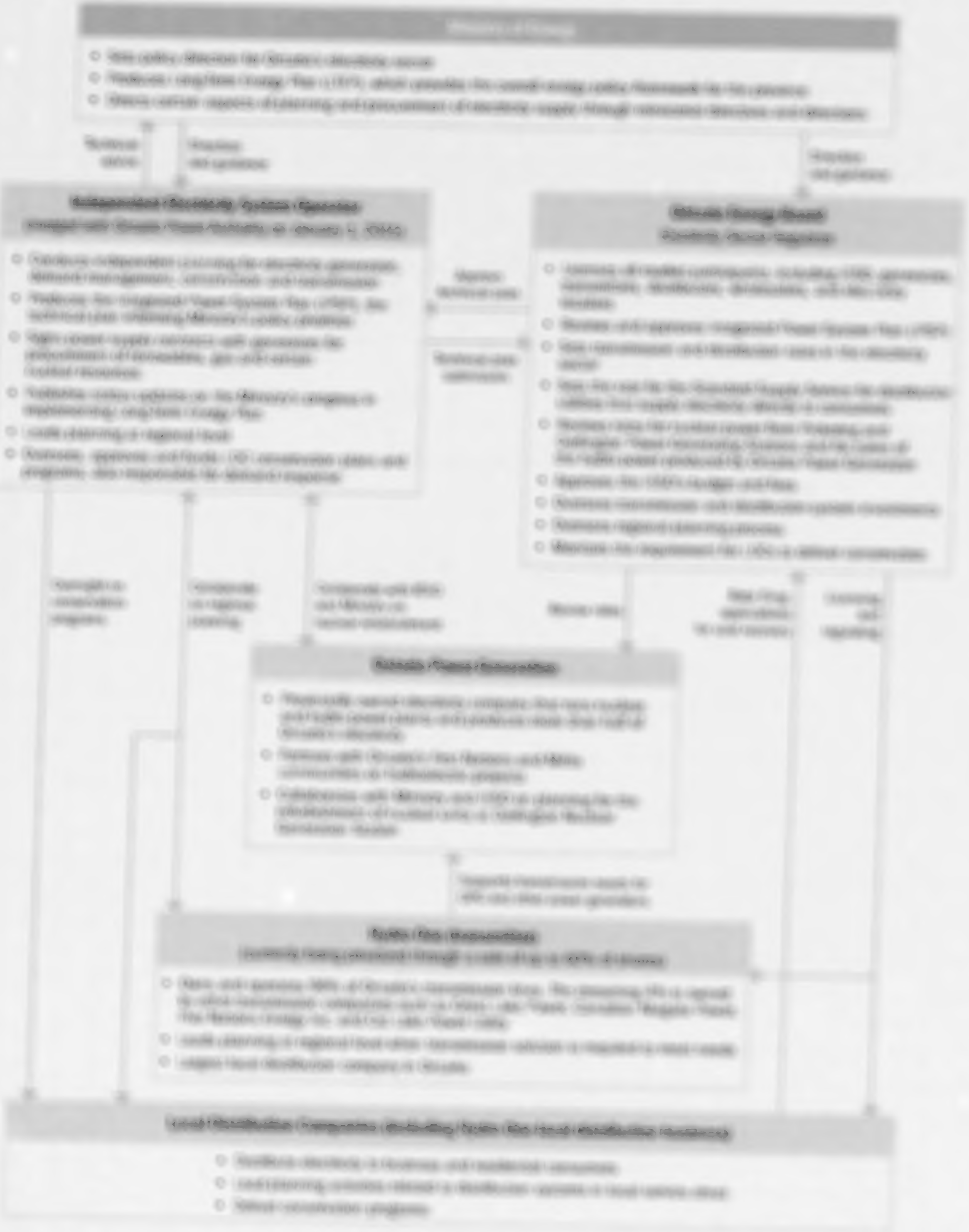
The entities involved in power system planning in Ontario include the Ministry of Energy (Ministry), the Independent Electricity System Operator (IESO), the Ontario Energy Board (OEB), Ontario Power Generation (OPG), Hydro One, a major transmitter and distributor (see **Section 3.06** of this year's Annual Report for our audit of Hydro One's Management of Electricity Transmission and Distribution Assets), four other small licensed transmitters and approximately 70 local distribution companies. **Figure 1** shows the key roles and responsibilities of each.

The Ministry and the IESO are the key players in power system planning at the provincial level. Their plans aim to ensure adequate supply, bulk transmission planning and interaction with local distribution companies. Under the *Electricity Act, 1998*, the Minister has the authority to issue directives (which require cabinet approval) on the supply mix, and directions (which do not require cabinet approval) on other matters relating to electricity planning.

The January 1, 2015, amalgamation of the Ontario Power Authority (OPA) and the IESO came about through an amendment to the *Electricity Act, 1998*, which made the new IESO responsible for power system planning. Before the amalgamation, the OPA had been responsible for conducting independent planning for electricity generation.

Figure 1: Roles and Responsibilities of Key Entities Involved in Electricity Power System Planning

Prepared by the Office of the Auditor General of Ontario


Ministry of Energy
Independent Electricity System Operator
(merged with Ontario Power Authority on January 1, 2015)
Ontario Energy Board
(Electricity Sector Regulator)
Ontario Power Generation
Hydro One Incorporated
Local Distribution Companies

conservation and transmission in Ontario. The OPA was also responsible for developing an Integrated Power System Plan (IPSP), a plan for achieving the province's energy goals over a 20-year period. **Appendix 1** summarizes the key events relating to power system planning in more detail.

At the regional level, the IESO, Hydro One, four other small licenced transmitters and approximately 70 local distribution companies jointly evaluate the needs of 21 electricity regions spread over 10 transmission zones in Ontario and plan for how to meet those needs. Hydro One and approximately 70 local distribution companies across the province are also responsible for assessing the current distribution system and delivery of electricity in their service areas.

As the regulator of the province's energy sector, the Ontario Energy Board (OEB) is supposed to play a significant role in power system planning, including reviewing and approving technical plans (although this role has been diminishing, as will be discussed further in this report).

The OEB's other responsibilities include licensing and overseeing energy companies, including utilities, generators and electricity retailers that offer energy under contract; approving the rates that utilities can charge their customers (through public hearings); writing rules and guidelines for the companies it licenses and rate-regulates; setting time-of-use prices and times; providing information and tools to help consumers make informed choices about energy matters; and approving new construction of or changes to existing natural gas pipelines and storage facilities, and electricity transmission lines that are more than two kilometres long.

1.3 Ontario's Changing Supply Mix

The supply mix is the combination of power sources that are used to generate the province's electricity.

Eliminating Coal as a Power Source in Ontario

In June 2006, the Ministry issued its first supply mix directive to the OPA. This directive would fulfill a commitment the Ministry had made to replace all coal-fired generation with cleaner renewable energy sources, such as wind, solar, biomass and hydroelectricity. At that time, about a quarter of Ontario's electricity was supplied by coal. The OPA noted that the sources of power that would replace coal should be cleaner, but to maintain system reliability they should also have characteristics similar to coal—flexibility and sustained production of energy.

Between 2003 and 2014, Ontario eliminated 7,546 megawatts (MW) that came from coal and added 13,595 MW of new capacity (6,580 MW of renewables, 5,674 MW of natural gas and 1,341 MW of nuclear) to the supply mix. **Figure 2** shows how Ontario's supply mix has changed since 2003 and projects what the supply mix will look like in 2032.

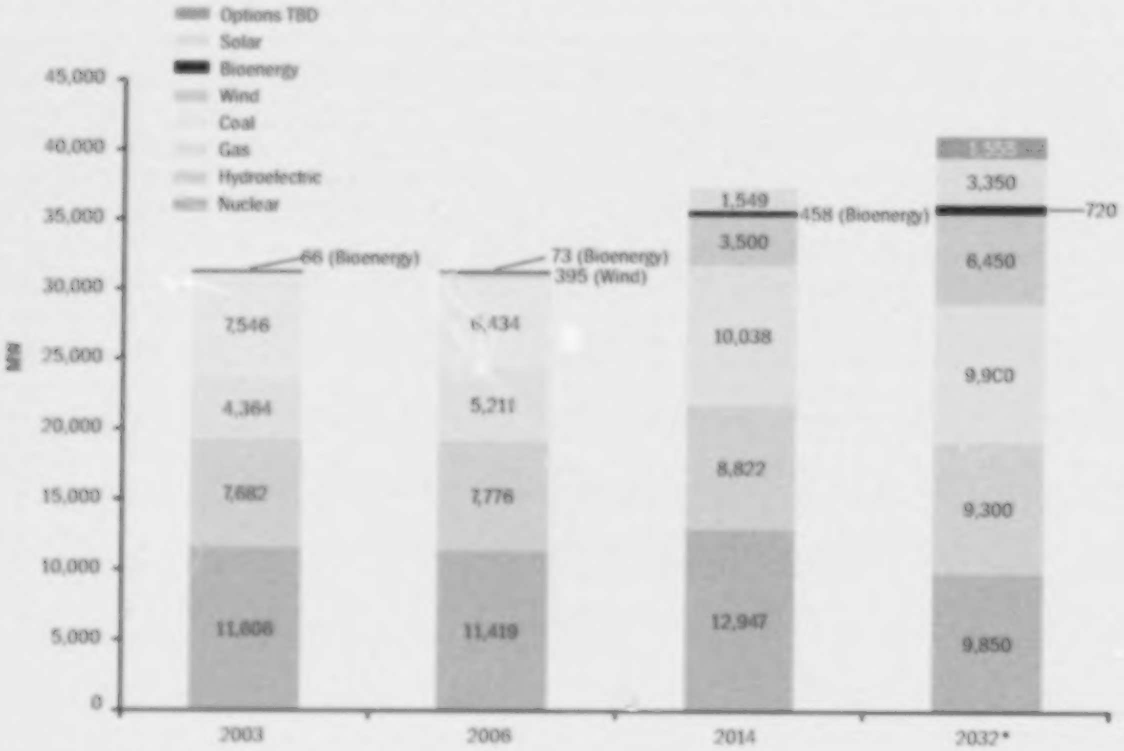
Procurement of Renewable Energy Sources

Before 2009, the OPA procured renewable energy through competitive bidding and a guaranteed-price program that provided fixed prices to renewable generators. These procurement efforts were successful and renewable generation targets were achieved in record time.

In 2009, upon the passing of the *Green Energy Act*, the Ministry directed the former OPA to create a new guaranteed-price program (called "FIT," which stands for "feed-in tariff") to promote greater use of renewable energy sources like wind and solar for new electricity-generating projects. Compared to the previous program, the new guaranteed-price program was wider in scope and offered generators significantly higher prices. Initially, the *Green Energy Act* required guaranteed-price renewable projects to have made-in-Ontario components, but the government amended the legislation following a 2013 World Trade Organization ruling. As a result, made-in-Ontario components are no longer required for guaranteed-price renewable projects with contracts signed after July 25, 2014. The guaranteed-price program is divided into two streams: one stream (FIT) is for projects that are larger than 10 kilowatts (kW); the other stream (microFIT) is for projects 10 kW or less. Subsequently, in 2013, the Ministry directed the OPA to develop a new competitive procurement program for large renewable projects.

Figure 2: Installed Capacity of Different Energy Sources in 2003, 2006, 2014 and 2032

Source of data: Independent Electricity System Operator



* Projected by the Ministry of Energy

Less Nuclear Power

The Ministry has projected a 13% decrease in nuclear production, as a percentage of overall energy production, from 57% in 2013 to 44% by 2032. There are three nuclear power generating stations in Ontario: Pickering Nuclear Generating Station, with six operating nuclear-reactor units; Darlington Nuclear Generating Station, with four operating nuclear-reactor units; and Bruce Nuclear Generating Station, with eight operating nuclear-reactor units.

In 2013, the Ministry deferred its plan to build new nuclear units. Pickering is scheduled to be shut down by 2020, and four nuclear units at Darlington and six nuclear units at Bruce are scheduled to be refurbished in stages from 2016 to 2028.

1.4 How Electricity Supply Meets Demand

To meet the system's demand there must be a sufficient supply of electricity at any given time. There are three components to the available electricity supply: baseload resources, intermediate and peaking resources, and reserves. (See **Appendix 2** for a list of Ontario's generation facilities, by type of energy resource, installed capacity and location.)

Baseload Resources

Baseload resources are usually reliable resources with lower operating costs that can be run consistently throughout the year to supply the continuous minimum demand for electricity. The energy sources that supply the baseload are typically large-scale and reliable, such as nuclear energy and run-of-river hydroelectric. In Ontario, wind and solar energy are treated as baseload resources by the IESO. They are used whenever they are available. While wind and solar energy cannot easily be stored for future use, the IESO has the ability to curtail these resources based on system need.

Intermediate and Peaking Resources

Intermediate and peaking resources typically include natural gas and some hydroelectric sources (only those with reservoir storage). These more flexible resources are dispatchable, which means that their generation levels can be more easily changed to match changes in demand.

Planning and Operating Reserve

Electricity system planners have different reserve requirements for long-term planning compared to real-time operations. From a planning perspective, planning reserves are required to ensure there are sufficient resources to reliably satisfy future demand. Planning reserves account for both operational uncertainties (such as generator unavailability and deliverability of resources) and demand uncertainties (such as economic and weather forecasts). From a real-time operations perspective, operating reserve is standby power for dealing with unplanned events that upset the balance of supply and demand, such as the loss of a power source. Operating reserve requirements must adhere to reliability standards established by the North American Electric Reliability Corporation and Northeast Power Coordinating Corporation. For example, Ontario's operating reserve typically provides enough standby power to make up for a potential loss of one and a half of the province's largest generators. Planning reserves are higher than operating reserves because there is greater uncertainty about expected demand levels and the availability of supply the further out from real-time.

Average Versus Peak Electricity Consumption

Our power system is expected to have sufficient electricity supply to meet peak demands and reserve requirements. Most of the time, the actual amount of electricity consumed is much lower than the maximum or peak demand. For example, the average demand for electricity in Ontario in 2014 was only 15,959 MW, whereas the maximum demand was 22,774 MW. **Figure 3** shows Ontario's available electricity supply at maximum peak times from 2009 to 2014 exceeded the peak demand.

Reducing the peak demand can lighten the burden on electricity infrastructure, which in turn can lessen the need to build new power plants, expand existing ones or enter into additional power-purchase agreements.

Surplus Baseload Generation

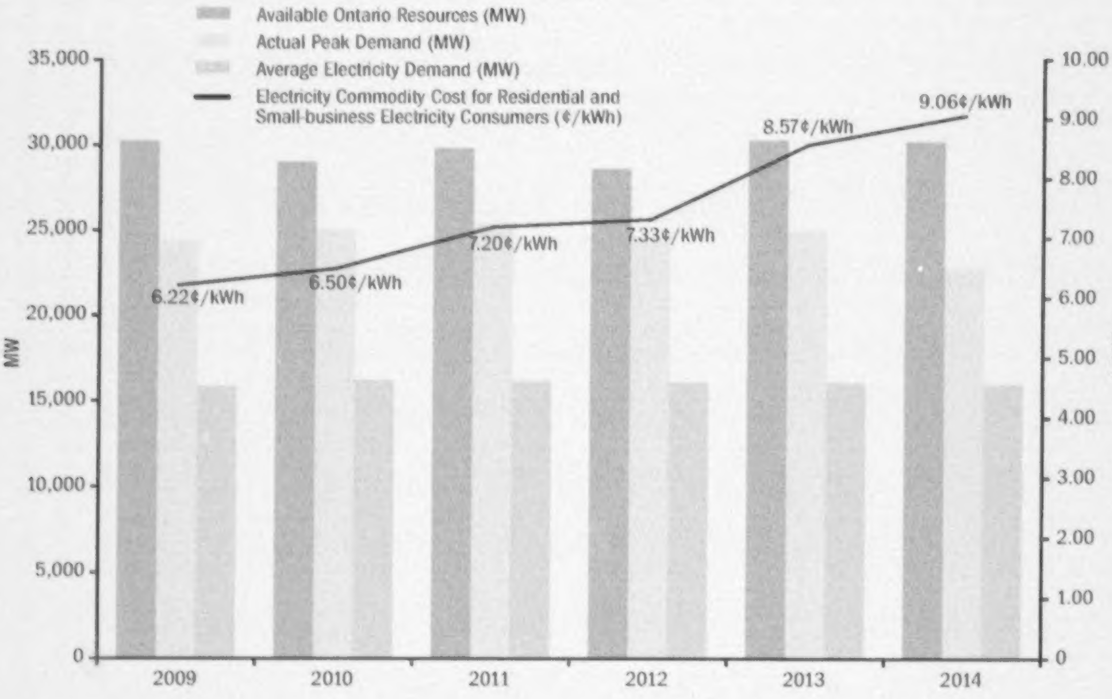
Surplus baseload generation occurs when the electric power produced by baseload generators exceeds the demand for electricity. The IESO manages the surplus by determining how to most efficiently balance supply and demand during real-time operations. This can involve exporting power to other jurisdictions and requesting some baseload generators to reduce (curtail) production or to completely shut down.

1.5 Long-term Demand Forecasting

Demand forecasting is an important aspect of long-term power system planning, because it affects decisions about generation, conservation and transmission solutions. The OPA (now the IESO) develops its 20-year electricity demand forecast by estimating the electricity consumption of end users such as residential, commercial and industrial customers. Once the amount of future electricity consumption is projected, the IESO subtracts the anticipated impacts of conservation from it to calculate the net demand. The net demand is typically the basis for key decisions in the power system planning process.

Figure 3: Electricity Commodity Cost, Available Electricity Resources, Average Electricity Demand and Peak Demand in Ontario, 2009–2014

Source of data: Independent Electricity System Operator



1.6 The Total Cost of Electricity in Ontario

In total, Ontario consumers paid $18.9 billion for electricity service in 2014. This total cost has six components: generation costs, conservation costs, transmission costs, distribution costs, regulation costs and debt-retirement costs.

Figure 4 breaks down Ontario's electricity service costs to consumers for 2014. As shown in the pie chart, generation cost, the largest component at $11.8 billion (or 62%), represents the cost of the electricity supply. **Figure 5** breaks down this generation cost by different types of energy sources. It shows that natural gas and non-hydro renewable energy such as wind, solar and bioenergy account for 16% of our total electricity production (before exports) while they account for 36% of Ontario's total generation cost. In general, generation cost is largely influenced by power system planning decisions regarding supply mix and capacity levels ultimately made by the government.

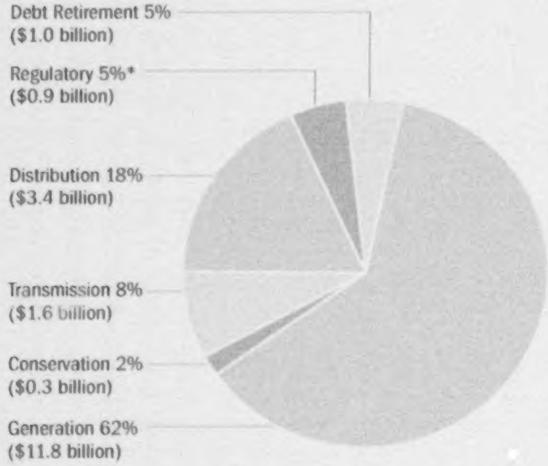
The "Electricity Charge" on Consumers' Electricity Bills

A typical Ontario electricity bill for residential and small-business ratepayers contains four categories of charges: electricity, delivery, regulatory and debt retirement. The electricity charge accounts for more than half of a typical utility bill. Most Ontario consumers pay time-of-use prices, which include the Hourly Ontario Energy Price and the Global Adjustment:

- **The Hourly Ontario Energy Price** is the average market clearing price for each hour based on Ontario's supply of and demand for electricity; it is determined by a competitive process in which generators offer to supply electricity to the market.

Figure 4: Breakdown of Ontario's Electricity Service Costs, 2014

Source of data: Independent Electricity System Operator



* Regulatory charges include a wholesale market service charge that covers services provided by the IESO to operate the wholesale electricity market and maintain the reliability of the high-voltage power grid, and a standard supply service charge that covers part of a utility's administrative costs to provide electricity to customers not served by a retailer.

Figure 5: Breakdown of Generation Cost By Energy Sources, 2014

Source of data: Independent Electricity System Operator

Technology	Cost ($ million)	Total Production (TWh)
Nuclear	5,900	**94.9**
Hydro	1,835	**37.9**
Gas/Oil	2,287	**14.9**
Wind	935	**7.8**
Solar	884	**1.8**
Bioenergy	100	**0.5**
Coal	7	**0.1**
Other*	186	**1.6**
Imports	251	**4.9**
Export (Revenue)	(636)	**(19.1)**
Total Generation Cost	**11,749**	

* Includes electricity produced via storage

- **The Global Adjustment** is mostly made up of the difference between the Hourly Ontario Energy Price and the guaranteed prices paid to regulated and contracted generators. Guaranteed prices are paid to generators, including, but not limited to, nuclear and hydroelectric generators administered by Ontario Power Generation (a provincially owned electricity company), non-utility generators administered by the Ontario Electricity Financial Corporation, and gas-fired, nuclear and renewable energy generators contracted by the former OPA (and now by the IESO). The Global Adjustment also includes conservation costs.

1.7 Interconnections and Electricity Imports

Through our transmission system, Ontario is electrically interconnected with Manitoba, Minnesota, Michigan, New York and Quebec. These interconnections have been of significant benefit to the province because they help to facilitate electricity trade and enhance the power system's reliability. A decade ago, when there was a shortage of domestic electricity supply, Ontario was heavily reliant on these interconnections with other jurisdictions to help meet summer peak demands.

However, Ontario now has a sufficient domestic supply of electricity to meet its own needs, and it currently uses its interconnections with neighbouring jurisdictions to more efficiently manage periods of surplus baseload generation. These interconnections are intended to smooth out normal minute-to-minute power system fluctuations and provide support immediately following emergency events. Ontario has been a net exporter since 2006, but Ontario imports some electricity—an average of about 6 million MWh annually between 2006 and 2014.

2.0 Audit Objective and Scope

The objective of our audit was to assess whether effective processes and procedures were in place to:

- ensure the transparency, accountability and efficiency of Ontario's electricity power system planning process in order to provide for reliable, cost-effective and sustainable power to meet provincial electricity demands within the context of applicable legislation and government policy; and
- measure and report periodically on the progress and results of Ontario's electricity system plans.

In conducting our audit, we reviewed applicable legislation, regulations, policies and studies; analyzed planning documents, including the Integrated Power System Plans and Long-term Energy Plans; and interviewed appropriate staff from the key entities involved in power system planning, including the Ministry of Energy, the Independent Electricity System Operator, the Ontario Energy Board, Hydro One and Ontario Power Generation. Ontario Power Generation is a provincially owned electricity company that runs nuclear and hydro power plants and produces more than half of Ontario's electricity. It collaborates with the Ministry and the IESO on planning for the refurbishment of nuclear units at Darlington Nuclear Generation Station.

We also met with representatives from stakeholder groups, including the Ontario Society of Professional Engineers, the Canadian Electricity Association, the Electricity Distributors Association, the Association of Municipalities of Ontario, and several local utilities. We also interviewed and conducted a survey of former Ontario Power Authority board members and other selected stakeholders. As well, we conducted research on power system planning in other jurisdictions to identify best practices. In addition, we engaged as an advisor an independent consultant with expert knowledge in the technical aspects of power system planning.

Calculation to Reflect Time Value of Money

In this report we present a number of potential savings relating to guaranteed-price renewable contracts based on actual contract values. Since these contracts carry a term of 20 or more years, the IESO has discounted potential savings using varying interest rates to reflect the time value of money. We have included both our calculation and the IESO's calculation in these instances.

3.0 Summary

An enormous amount of technical planning is required for Ontario to determine how it will meet its future electricity demands. The importance of this type of planning is reflected in provincial legislation: The *Electricity Act, 1998*, was amended in 2004 to require the Ontario Power Authority (OPA, now merged with the IESO) to conduct independent planning and prepare an "Integrated Power System Plan," a technical plan to help Ontario meet its future electricity demands. To protect the interests of consumers, the Act also requires the Ontario Energy Board (OEB) to review and approve the technical plan to ensure that it is prudent, cost-effective and consistent with the government's supply mix directive.

But over the last decade, this power system planning process has essentially broken down, and Ontario's energy system has not had a technical plan in place for the last ten years. Operating outside the checks and balances of the legislated planning process, the Ministry of Energy has made a number of decisions about power generation that have resulted in significant costs to electricity consumers.

A great deal of time, effort, and money has been spent on developing technical plans that were never implemented. During the period from 2004 until the time of its merger with the Independent Electricity System Operator (IESO) in 2015, the OPA prepared two technical plans, in 2007 and 2011, at a cost of more than $16 million. Neither of these was ever approved by the OEB. The OEB had to cease its review of the 2007 technical plan after the Minister of Energy issued a new supply mix directive requiring the OPA to prepare a revised plan. In 2011, the OPA submitted a copy of its updated technical plan directly to the Ministry rather than to the OEB. At the same time, a provincial election was held in October 2011 and a new Minister of Energy was appointed. In April 2012, Bill 75, which proposed to merge the OPA and IESO and amend the IPSP planning process, was introduced. Because the legislation does not require the Minister to approve the OPA's technical plan, the Ministry did not respond to the OPA's submission and the technical planning process was halted. And as the OEB was not given an opportunity to review the technical plans as is required under the *Electricity Act*, it has not been able to ensure that Ontario's technical energy planning has been carried out in a prudent and cost-effective manner to protect the interests of electricity consumers over the past ten years.

Meanwhile, the cost of electricity in Ontario has been steadily increasing. From 2004 to 2014, the amount that residential and small-business electricity consumers pay for the electricity commodity portion (includes Global Adjustment fees) of their bill has increased by 80%, from 5.02 cents/kWh to 9.06 cents/kWh. Under the *Ontario Energy Board Act, 1998*, the OEB is responsible for protecting the interests of consumers with respect to prices, adequacy, reliability and the quality of electricity service, but the Act only grants the OEB limited oversight over power generation (Pickering and Darlington nuclear plants along with some hydropower). But not having an approved technical energy plan in place meant that the OPA was able to procure new sources of electricity supply under government directives—without this OEB oversight. New power supply contracts signed by the OPA accounted for about 65% of Ontario's total installed capacity in 2014. With Ontario's changing supply mix, we estimate that the OEB's oversight on power generation costs will decrease even further, to only about a quarter of our expected installed capacity by 2032.

The Ministry has issued a total of 93 directives and directions to the OPA between 2004 and 2014. Through them, it has made a number of decisions about power generation—decisions that sometimes went against the OPA's technical advice. It is our view that the Ministry did not fully consider the state of the electricity market or the long-term effects different supply mix scenarios would have on Ontario's power system in making some of these decisions. A number of them have resulted in significant costs to electricity consumers:

- **Expensive wind and solar energy**—We calculate that electricity consumers have had to pay $9.2 billion (the IESO calculates this amount to be closer to $5.3 billion, in order to reflect the time value of money) more for renewables over the 20-year contract terms under the Ministry's current guaranteed-price renewable program than they would have paid under the previous program. Before 2009, Ontario already had several successful procurement programs for renewable energy that achieved renewable generation targets in record time. Nevertheless, in 2009 the Ministry directed the OPA to create a new guaranteed-price program that offered significantly more attractive contract prices to generators. At the same time, the OPA had made a suggestion to the Ministry to use a competitive procurement process for large renewable energy projects, but the Ministry decided against it. After procuring about 200 large renewable projects, which accounted for $4.7 billion of the $9.2 billion mentioned above, the Ministry directed the OPA to develop a new competitive procurement process for large renewable projects. With wind and solar prices around the world beginning to decline around 2008, a competitive process would have meant much lower costs. We found that the prices under Ontario's guaranteed-price renewable program were still double the market price for wind and three and a half times the market price for solar energy in 2014. Because wind and solar energy are intermittent, other resources, such as natural gas, are still needed to meet Ontario's supply requirements. Increasing the amounts of wind and solar in Ontario's supply mix also means that only about 80% of our total generation capacity is available for meeting peak-period demands. In other words, we can only count on 80% of the electricity generation that Ontario has invested in because not every day will be windy or sunny enough to provide reliable renewable energy during peak-demand periods when we need power the most. And since the Ministry plans to increase the proportion of wind and solar in the supply mix, this percentage is projected to fall further, to 70% by 2032.

- **OPA directed to proceed with costly hydro project**—In January 2010, the OPA expressed concerns to the Ministry after the Lower Mattagami hydro project's estimated costs increased substantially since its initial estimate, by $1 billion. The Ministry directed the OPA to proceed with the project because it would assist in meeting the Ministry's renewable targets and investing in Aboriginal communities and the economy of northern Ontario. The average cost of electricity produced at this hydro facility is $135/MWh, while the average cost of electricity produced at two other recent hydro projects outside of the Mattagami River area in Ontario is $46/MWh. One of the projects involved adding an extension to an existing facility and had a lower cost of $35/MWh; the other project involved building a brand-new facility and had a higher cost of $56/MWh. Our review of other recent hydro projects in other Canadian jurisdictions show that the $56/MWh is comparable.
- **Conversion of coal plant to biomass facility not cost-effective**—The Ministry directed the OPA to convert a Thunder Bay coal plant into a biomass facility despite OPA's advice that the conversion was not cost-effective. The Ministry cites facilitating economic growth and job creation in the forestry industry as its reasons for going ahead with the project despite the fact that this facility uses imported forestry resources that can only be purchased from outside of Canada. The cost of electricity from this facility is $1,600/MWh—25 times higher than the average cost at other biomass facilities in Ontario.
- **Costly cancellation of natural gas plants**—The Ministry directed the OPA to cancel contracts for two gas plants that had been planned for the southwest Greater Toronto Area, where the need for them was greatest, and relocate them to Napanee and Lambton. Our 2013 special reports on the Oakville and Mississauga power plant cancellations projected cancellation costs to be $950 million.

Ontario currently has an oversupply of electricity. From 2009 to 2014, the province's available electricity supply exceeded its maximum hourly consumption by 5,160 MW per year, on average—an amount that approximates the total existing power generation capacity of the province of Manitoba. And the IESO forecasts Ontario's baseload generation from 2015 to 2020 to exceed the province's demand by a total of 52.3 million MWh—an amount that would be enough to power the province of Nova Scotia for about five years. We are concerned that the Ministry continues to invest in conservation efforts when Ontario already has significant surplus power. In fact, system costs could be more effectively reduced by a decrease in peak consumption paired with an increase in off-peak consumption, which would flatten the overall load. However, overall, the conservation program has been more successful in achieving its electricity consumption targets than its peak demand targets.

- **Conservation during surplus power period contributes to expensive electricity curtailments and exports**—Ontario has spent approximately $2.3 billion in conservation programs and initiatives from 2006 to 2014, and has committed to spending another $2.6 billion over the next six years. But investing in conservation does not necessarily mean saving money during periods of surplus because energy savings from conservation efforts can add to Ontario's surplus, contributing to an oversupply of electricity that means increasing exports and/or curtailing production. Since power is exported at prices below what generators are paid, and curtailed generators are still paid even when they are not producing energy, both of these options are costly. From 2009 to 2014, Ontario had to pay generators $339 million for curtailing 11.9 million MWh of surplus electricity; during the same period, Ontario exported 95.1 million MWh of power to other jurisdictions, but the amount it was paid was $3.1 billion less than what it cost to produce that power. In 2014 alone, 47% of Ontario's total power exports were related to surplus generation, with low-cost and low-carbon-emission energy, such as hydropower and nuclear-generated electricity, being exported. As well, from 2009 to 2014, there were also almost 2,000 hours in which the Hourly Ontario Electricity Price was negative, and Ontario paid exporters a net total of $32.6 million to take our power.

We also found that the lack of a structured, coordinated planning process has had ongoing negative effects on the performance of the transmission system:

- **Outstanding capacity and reliability issues**—A number of regions, including Kitchener-Waterloo-Cambridge-Guelph and Windsor-Essex, have capacity and reliability issues. The majority of transmission lines delivering power to these areas have exceeded, reached or are close to reaching their capacity, and are not expected to be capable of meeting significant increases in peak demand. The OPA identified these issues in its 2007 Integrated Power System Plan that was never approved or implemented. Although work was underway on projects to address these needs, at the time of our audit the issues remained unresolved.
- **Lack of capacity to connect renewable generators**—A total of 2,545 small guaranteed-price (microFIT) renewable projects could not proceed because there was not enough transmission capacity to accommodate the number of project applications that flooded in. To deal with this, the Ministry directed the OPA to allow those applicants to combine their projects and reapply under the larger guaranteed-price program (FIT) while still offering them the higher microFIT contract price set for small projects. We calculate that this will cost electricity consumers $239 million more for these contracts over their 20-year contract terms (the IESO calculates this amount to be closer to $126 million, in order to reflect the time value of money).
- **Generators compensated for constrained outputs**—In Ontario, generators may be entitled to compensation payments (in addition to the market price they receive for producing energy) when they are asked by the IESO to supply more or less power as the system requires. From 2009 to 2014, a total of $407.6 million had been paid to compensate generators for either increasing or not producing power on demand. In 2014 alone, generators were paid $117.3 million—an increase of 77% since 2009. Overall, we found that generator-constrained volumes have significantly increased (by 36%) while electricity demand has remained relatively stable. The IESO informed us that changes in regional demand and changes in supply mix to support the phasing out of coal along with the significant increases of renewable energy have changed the flow patterns in the power system, contributing to increases in transmission constraints in recent years, especially in the Bruce and North East regions.

- **Electricity imports not given due consideration when they were needed**—Importing power would have been a viable alternative to procuring renewable energy sources to meet electricity demands. However, the OPA's planning process did not include a cost/benefit analysis of increasing transmission capacity to accommodate contracted hydro imports from neighbouring jurisdictions (compared to signing expensive renewable wind and solar contracts), and the Ministry has only considered contracted imports more recently. The government has decided to sign a contract with Quebec committing to exchange electricity starting in late 2015, and it is also considering importing electricity from Newfoundland and Labrador.

Most of the responses to our recommendations refer to recently introduced draft legislation (Bill 135). Our Office is not in a position to comment on the merits of this draft legislation, nor at this point in time can we assess whether the changes proposed in the draft legislation would meet the intent of our recommendations.

This report contains five recommendations, consisting of 16 actions, to address the findings noted during this audit.

4.0 Detailed Audit Observations

4.1 Planning Process Has Broken Down

4.1.1 Ontario Does Not Have an Integrated Power System Plan in Place

Under the *Electricity Act, 1998*, the OPA was mandated to conduct independent electricity planning and to regularly prepare an "Integrated Power System Plan," (referred to hereinafter as the "technical plan") a 20-year technical plan to guide the province in achieving its energy goals and to protect the interests of electricity consumers. Although having a technical plan in place has been a legal requirement for over a decade, since 2004, Ontario has never had an approved technical plan in place. The OPA did develop two technical plans, one in 2007 and another in 2011, but neither plan went forward because of changes to government policy. Developing these plans cost the OPA over $16 million.

In 2010, the Ministry published its "Long-term Energy Plan" (referred to hereinafter as the "policy plan") a shorter, more policy-oriented document outlining Ontario's energy goals and supply mix for the next 20 years. Although there is no legislative requirement for the Ministry to prepare such a plan, the Ministry updated its policy plan in 2013, and plans to continue to review and update it every three years. The Ministry told us that a technical plan was no longer warranted following the release of its 2013 policy plan, noting that the technical-planning process is expensive, lengthy and inflexible for responding to market changes. However, while we noted that the Ministry's 2013 policy plan provided more technical information than the 2010 policy plan, we found that this plan was still not sufficient for addressing Ontario power system's needs and for protecting electricity consumers' interests. We noted the following deficiencies:

- **No cost/benefit analysis of other alternatives**—The Ministry's 2010 and 2013 policy plans did not present the detailed cost/benefit analyses of the different scenarios and alternatives included in technical plans, such as the plans the OPA prepared (but which were never approved) in 2007 and 2011.
- **Lack of transparency**—Electricity consumers are not being informed of the reasons behind rising electricity costs. Although the Ministry's 2013 policy plan identified actions the government was taking to reduce electricity costs, it failed to identify the key cost drivers that have had the most significant effect on electricity rates: surplus power and the Global Adjustment.

- **Questionable stakeholder consultation process**—The Ministry undertook a two-month stakeholder consultation process for its 2010 policy plan but could not provide us with a summary of the responses it received. We noted that this plan was released just five days after the consultation period ended, and questioned whether this was enough time for the Ministry to review all the stakeholder feedback it received and consider it fully in preparing the plan.
- **No interim reporting**—In 2011, the Ministry set an interim peak demand reduction target of 4,550 MW by 2015. However, it removed this interim target from its 2013 policy plan without providing the public with any rationale for doing so or setting a new replacement interim target. The 2013 policy plan also did not include a progress report on the interim targets previously set in the 2010 policy plan.

Even if the Ministry's policy plan was a sufficient replacement for OPA/IESO's technical plan, there is still a legislative requirement for a technical plan to be prepared, which the Ministry continues to ignore. In 2013, the OPA wrote to the Ministry to suggest changes to legislation that would have the OPA continue to prepare the technical plan but submit it to the Ministry rather than the Ontario Energy Board for review and approval. The Ministry did not respond to the OPA's recommendation nor provide it with any direction as to whether it continued to have an obligation to produce the technical plan and to whom it should submit the plan.

When the OPA/IESO merger legislation passed in July 2014, it included a provision still requiring the new entity (the IESO) to prepare a technical plan and submit it to the Ontario Energy Board for review. After the merger took place in 2015, the new IESO wrote to the Ministry about potential changes to the long-term planning process. At the time of our audit, the Ministry had not responded or provided the IESO with any direction regarding the preparation of a technical plan.

4.1.2 Limited Ontario Energy Board Oversight Means Limited Consumer Protection

By allowing the technical planning process to break down, the Ministry has effectively cut the Ontario Energy Board (OEB) out of the picture. One of the OEB's key objectives is to protect the interests of consumers with respect to prices and the adequacy, reliability and quality of electricity service. But with no oversight on electricity power system planning and only very limited oversight on electricity generation costs, it has been difficult for the OEB to meet this mandate in any meaningful way. We noted the following:

- **OEB could not complete reviews of technical plans**—The *Electricity Act, 1998*, was amended in 2004 to require the OEB to review and approve the OPA's Integrated Power System Plans to ensure that they comply with any directions issued by the Minister and are fiscally prudent. In 2008, the OEB suspended its review of the OPA's 2007 technical plan when the Minister sent a revised directive asking the OPA to revise the plan in response to changes to government policy regarding Ontario's supply mix and provide the revised plan to the OEB for review. However, the OPA did not submit the revised plan to the OEB as directed by the Ministry, but forwarded it directly to the Minister for review in 2011. The OPA indicated that it submitted the plan to the Minister first so that the Minister could review whether the OPA had adequately fulfilled its responsibility of consulting with First Nation and Métis communities in developing the plan, as directed in the 2011 Supply Mix Directive. However, neither the Minister nor the Ministry responded to the OPA's submission and eventually the planning process was abandoned, with no copy provided to the OEB.
- **OEB not authorized to review the Ministry's policy plans**—Unlike the OPA's technical plans, the Ministry's policy plans are

not required by legislation and the OEB is not authorized to review them. This means that neither of the Ministry's two policy plans have been subject to any independent review to ensure that they are fiscally prudent and that electricity consumer interests are protected.

- **Limited OEB oversight over electricity generation costs**—By law, the OEB may only review rates for nuclear power from Pickering and Darlington and for hydropower produced by Ontario Power Generation. This means that OEB's oversight is limited to only about 35% of Ontario's current installed capacity. The other two-thirds are ministry-directed power supply contracts with other nuclear generators and renewable and gas generators, which the OEB has no authority to review. There is currently no OEB oversight on power supply contract pricing to ensure that the contracts signed represent the best value for Ontario electricity consumers. As Pickering approaches its shutdown and as more renewable energy and gas contracts are expected to be signed in the future, we estimate that the OEB's oversight will decrease to only about a quarter of Ontario's installed capacity by 2032.
- **OEB was not consulted in the privatization of Hydro One**—On April 23, 2015, the government announced in its 2015 Budget that it plans to broaden Hydro One ownership through the public offering of 60% of Hydro One shares. This will be one of the largest privatizations of a government-owned generation asset in Canada. With private investors interested in maximizing profits, it is uncertain what the impact on electricity prices will be. The OEB, the protector of consumer interests, was not consulted in this decision-making process. At the same time, the government passed the *Building Ontario Up Act* on June 4, 2015, under which Hydro One Inc. and its subsidiaries are deemed not to be agencies of the Crown.

RECOMMENDATION 1

To ensure that electricity power system planning better protects the interests of electricity consumers, the Ministry of Energy should comply with provincial legislation and:

- **clarify the roles of the Ministry of Energy and the Independent Electricity System Operator in preparing future technical plans;**
- **require full technical plans to be prepared on time and ensure that they are submitted to the Ontario Energy Board for review and approval;**
- **provide more public information for electricity consumers about the cost drivers of increasing electricity rates and the impact that various decisions have on electricity costs; and**
- **review the role of the Ontario Energy Board to determine how it can be made more effective in protecting the interests of electricity consumers.**

MINISTRY RESPONSE

The Ministry agrees with the Auditor General's recommendations.

On October 28, 2015, the Minister of Energy introduced the *Energy Statute Law Amendment Act, 2015* (Bill 135) that, if passed, would replace the current Integrated Power System Plan (IPSP) process with an enhanced Long-Term Energy Plan (LTEP) process. If passed, the proposed legislation would do the following:

- It would clarify the roles of the Ministry of Energy and the Independent Electricity System Operator (IESO) in developing future long-term energy plans. The Ministry recognizes IESO's technical knowledge and expertise with respect to the electricity sector and is committed to maintaining an IESO role in the development of future energy plans.
- It would kick off the LTEP process with the development of a technical plan by the

IESO that would be used by the province in consultations on and the development of the LTEP. The proposed legislation would also provide for the development of implementation plans by the IESO and the Ontario Energy Board (OEB).

- It would enshrine extensive consultations with consumers, stakeholders and Aboriginal groups, and the creation of the plan will be consistent with the principles of cost effectiveness, reliability, clean energy, community and Aboriginal engagement, and with an emphasis on conservation and demand management. It would also require the publication of the LTEP and other key information and data used in its development on a Government of Ontario website.

In addition, on June 2, 2015, the Ministry introduced the *Strengthening Consumer Protection and Electricity System Oversight Act, 2015* (Bill 112) that would enhance the OEB's mandate and organization to regulate the energy sector and protect consumers. The proposed legislation would, if passed, enhance the OEB's role in the protection of Ontario energy consumers by creating further opportunities to enhance consumer representation in OEB proceedings, ban the sale of retail energy contracts at the door and provide the OEB with an improved ability to ensure continuity of service for electricity consumers.

4.2 Extensive Use of Ministerial Directives and Directions

In the absence of an approved technical plan, it has been the Ministry's practice to communicate its energy policy objectives by issuing directives and directions to the OPA, the OEB, OPG and Hydro One. **Figure 6** summarizes the most significant ministerial directives and directions issued to the OPA prior to 2015. Although the *Electricity Act, 1998*, gives the Minister of Energy the authority to issue directives on supply mix (which require cabinet approval) and directions (which do not require cabinet approval) on all other matters related to electricity, we found that the Ministry's reliance on directives and directions has affected the electricity power system planning process in a number of ways:

- **No OEB oversight** — The OEB cannot perform a regulatory review of decisions made through ministerial directives and directions. This means another area of the planning process where the OEB has no oversight, which ultimately means that consumer interests may not be fully represented. For example, when the Ministry directed that its guaranteed price renewable program offer generators prices significantly higher than market rates for renewable energy, the OEB had no say in the matter because it does not regulate renewables.
- **Increasing costs for consumers** — We found that many of the Ministry's directives and directions to the OPA relating to the procurement of electricity from renewable energy, natural gas and nuclear resources presented a significant cost impact to Ontario electricity consumers. Annual electricity consumption in Ontario has decreased from 151.1 million MWh in 2006 to 135.8 million MWh in 2014 (see **Figure 7**). Despite this decrease in consumption, Ontario's generation capacity has increased by 10% over the same period. **Figure 8** shows that electricity charges for residential and small business electricity consumers have increased by 70%, from 5.32 cents/kWh in 2006 to 9.06 cents/kWh in 2014. Most of the increase in what consumers pay for electricity has come from generation cost increases, which currently account for about 60% of the overall cost of electricity. Generation costs have increased by 79% over the last decade, from $6.7 billion in 2004 to $11.8 billion in 2014, and they are expected to grow to $15.8 billion by 2022. In particular, Global Adjustment fees have increased significantly, from $650 million in 2006 to $7.03 billion in 2014. From 2006 to

Figure 6: Summary of Key Ministerial Directives and Directions to Ontario Power Authority

Source of data: Independent Electricity System Operator

Month, Year	Directive	Key Directives Summarized
June 2006	Supply Mix Directive	OPA to create an Integrated Power System Plan (IPSP) to meet demand reduction from conservation by 6,300 MW by 2025, and increase installed capacity of new renewable energy sources by 15,700 MW by 2025.
September 2008	Supply Mix Directive	Amends previous Supply Mix Directive. Requires the OPA to revisit the IPSP with a view to establishing new targets in a number of areas, including renewable energy sources and conservation.
February 2011	Supply Mix Directive	Replaces previous Supply Mix Directives. Requires OPA to develop an IPSP to meet the government's specific goals and targets, such as the refurbishment of nuclear stations and procurement of two new nuclear generating units; installed capacity of 10,700 MW of non-hydro renewable by 2018; and achieving conservation peak demand reduction target of 7,100 MW and an energy savings target of 28 TWh by the end of 2030.

Month, Year	Directions	Key Directions Summarized
March 2006	Guaranteed Price Renewable Program	Assume responsibility for the development of a guaranteed-price renewable program for small renewable generators to be in place by the fall of 2006.
August 2007	Procurement of up to 2,000 MW Renewable Energy Supply	Procure up to 2,000 MW of renewable generation projects greater than 10 MW in size through competitive procurement.
December 2007	Hydroelectric Energy Supply Agreements with Ontario Power Generation Inc.	Assume responsibility for negotiating with OPG on a number of specific hydro projects selected by the government.
September 2009	New Guaranteed Price Renewable Program	Develop a new guaranteed-price renewable program that is wider in scope with specific domestic content requirements.
April 2010	Green Energy Investment Agreement	Negotiate one or more power purchase agreements with Korean Consortium, substantially similar to the guaranteed-price renewable program contract and rules, with necessary modifications to reflect the terms of the government's Green Energy Investment Agreement (GEIA). OPA is further directed to give priority to GEIA projects when assessing transmission availability.
August 2010	Atikokan Biomass Energy Supply Agreement with Ontario Power Generation	Make reasonable efforts to complete the negotiation of a long-term energy supply contract to convert the Atikokan Generating Station from coal to biomass.
September 2010	Green Energy Investment Agreement	Hold 500 MW of transmission capacity to be made available in the Bruce area in reserve for phase two projects of the Korean Consortium.
August 2011	Constrained Small Guaranteed Price Renewable Projects	The constrained applicant may combine and relocate, to any one new property, up to 50 constrained projects, up to 500 kW. The constrained applicant must sign an agreement with the OPA, for which the agreement provides for the same prices as in the conditional offers for the constrained projects.
November 2012	Industrial Electricity Program	Develop and implement the Industrial Electricity Incentive Program to improve load management and the management of electricity demand in Ontario. Sets out specific program design and eligibility criteria.
December 2012	Southwest GTA Supply	Enter into negotiations for a Clean Energy Supply Contract with TransCanada Energy Limited (TCE) with respect to a gas-fired generation facility on the lands of the Lennox Generating Station. The contract is to be consistent with the Memorandum of Understanding entered into between the Province, TCE and the OPA on September 24, 2012.

Month, Year	Directions	Key Directions Summarized
December 2013	Supply Agreement with Ontario Power Generation for the conversion of Thunder Bay Generating Station	Negotiate and enter into a contract with OPG for the procurement of electricity from advanced biomass from one converted unit at the Thunder Bay generating station, subject to the parameters provided in the direction.
March 2014	Procuring Energy Storage	Pursue the procurement of 50 MW of energy storage by the end of 2014. Through a letter dated February 24, 2014, the Minister expressed a preference that as much as 36 MW be procured through IESO-led procurement efforts, and the balance through OPA-led procurement efforts. (This direction is to OPA to begin its phase of the procurement.)
March 2014	Large Renewable Procurement	Complete work on the draft Request for Qualifications and draft Request for Proposals for the Large Renewable Procurement Process. Future ministerial direction will define particular features of the final RFP.
April 2014	Industrial Electricity Program	Expand eligibility to certain other energy-intensive sectors and extend the contract term to a period with no surplus to attract applicants.

Figure 7: Annual Grid-connected Energy Consumption in Ontario, 2006–2014

Source of data: Independent Electricity System Operator

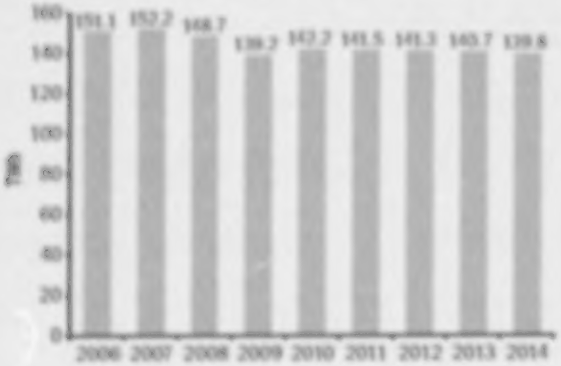
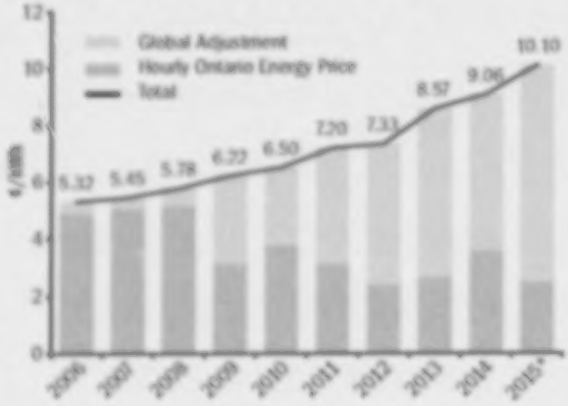


Figure 8: Ontario Electricity Charges for Residential and Small-business Customers, 2006–2015

Source of data: Independent Electricity System Operator



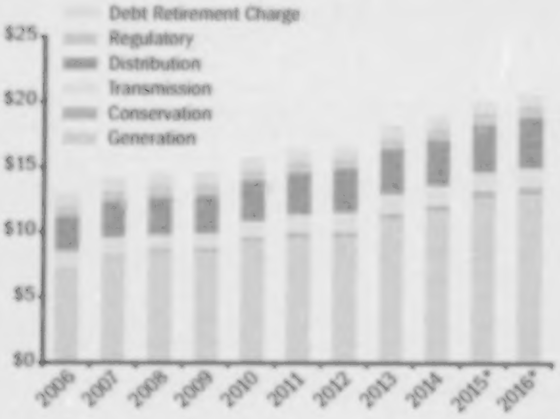
* Projections taken from the Ministry's 2013 Long Term Energy Plan.

2014, electricity consumers have already paid a total of $37 billion, and they are expected to pay another $133 billion in Global Adjustment fees from 2015 to 2032. **Figure 9** shows the actual and projected total cost breakdown of electricity service in Ontario from the year 2006 to 2016.

- **Limiting the independent planner's role**—Although it was the OPA's mandate to conduct "independent" electricity planning for Ontario, seven different Ministers of Energy have issued three directives on supply mix and 90 directions to the OPA since the time of its creation in 2004 to the time of its merger with the IESO in 2015. In one of its communications to the Ministry, the OPA indicated that the Minister's 2011 supply mix directive (which called for a renewable energy capacity of 19,700 MW by 2018) in particular had significantly reduced the amount of discretion left to the OPA. In our survey of former OPA board members, all respondents reported that because there were sometimes policy disagreements, the OPA requested directions

Figure 9: Annual Total Cost of Electricity Service in Ontario, 2006–2016 ($ billion)

Source of data: Independent Electricity System Operator



1. Regulatory charges include a wholesale market service charge that covers services provided by the IESO to operate the wholesale electricity market and maintain the reliability of the high-voltage power grid, and a standard supply service charge that covers part of a utility's administrative costs to provide electricity to customers not served by a retailer.
2. Generation cost includes Global Adjustment fees.
3. Projections taken from the Ministry's 2013 Long Term Energy Plan.

from the Ministry on several occasions before implementing a certain policy or executing a certain contract. For example, the OPA requested directions on the guaranteed-price renewable program's contract pricing and on the conversion of the Atikokan coal plant into a biomass facility.

- **Lack of transparency**—The Ministry's use of directives and directions to make major decisions has resulted in a process that is less than open and transparent—both to the key players in the electricity-sector and to the public. The OPA's mandate was to be Ontario's technical planner with expert knowledge of the power system, but it often could not apply its expertise because the rationale behind many of the directives and directions it received from the Ministry was not apparent. We found no evidence that ministerial directives and directions were supported by public consultations or economic analyses disclosed to the public. In our survey of former OPA board members, 83% of respondents felt that the Ministry's directives had negative impacts on the overall quality (i.e., accountability and transparency) of electricity planning.

RECOMMENDATION 2

To ensure that ministerial directives and directions fully consider both the technical-system impacts and economic impacts that affect electricity consumers, the Ministry of Energy should:

- regularly engage with the Independent Electricity System Operator and other technical expert advisors during the decision-making process; and
- make the decision-making process more transparent and accountable by providing information to the public on directives, directions and rationales for decisions made.

MINISTRY RESPONSE

The Ministry agrees with the Auditor General's recommendation.

On October 28, 2015, the Minister of Energy introduced the *Energy Statute Law Amendment Act, 2015* (Bill 135) that, if passed, would replace the current Integrated Power System Plan (IPSP) process with an enhanced Long Term Energy Plan (LTEP) process. If passed, the proposed legislation would do the following:

- It would clarify the roles of the Ministry of Energy and the Independent Electricity System Operator (IESO) in developing future long-term energy plans. The Ministry recognizes IESO's technical knowledge and expertise with respect to the electricity sector and is committed to maintaining an IESO role in the development of future energy plans. The IESO, as proposed in the legislation, will develop a technical report to kick off the LTEP process and, both agencies, the Ontario Energy Board (OEB) and the IESO will develop implementation plans detailing how they would implement the LTEP's objectives.

- It would enshrine extensive consultations with consumers, stakeholders and Aboriginal groups, and the creation of the plan will be consistent with the principles of cost-effectiveness, reliability, clean energy, community and Aboriginal engagement, and with an emphasis on conservation and demand management. The proposed legislation would also require the publication of the LTEP and other key information and data used in its development on a Government of Ontario website.

In addition, the directives and directions sent to the IESO contain key background information and rationale on policy objectives. The directives and directions are also publicly posted on the IESO's website, and, as when it implements the directives and directions, the IESO consults with stakeholders and the public to ensure that the program objectives, rationale and process are transparent.

4.3 Problems with Generation Procurement Decisions

4.3.1 Electricity Surpluses Mean Higher Electricity Costs for Consumers

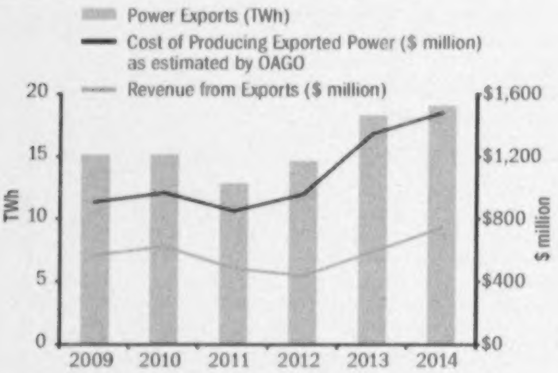
With no approved technical plan in place, the Ministry directed the then OPA (now the IESO) to procure renewable, natural gas and nuclear resources on an "as and when required" basis. But, as the sections that follow will show, this method of procurement has contributed to an oversupply of electricity in the province. Ontario has experienced more days with surplus electricity generation in recent years, from 172 days in 2011 to 319 days in 2014—an 85% increase over four years. From 2009 to 2014, the province's available electricity supply exceeded its maximum demand by 5,160 MW per year, on average—an amount that approximates the total existing power generation capacity of the Province of Manitoba. In 2014 alone, Ontario's available electricity supply exceeded the peak demand by about 7,500 MW. As part of the North American Electric Reliability Corporation requirement, the IESO has to take into consideration both operating and planning reserves. From 2009 to 2014, Ontario's electricity supply on average exceeded the peak demand and operating reserve by over 3,600 MW per year; when allowing for greater planning reserve, Ontario still has a surplus of about 2,500 MW per year on average. Our review found that the IESO's planning reserve was based on an optimistic demand forecast that did not anticipate or subsequently adjust for the global recession in 2008, and that did not fully incorporate the decrease in electricity consumption from conservation initiatives.

The IESO manages surplus electricity generation by exporting power to other jurisdictions, and by requesting some Ontario baseload generators to curtail or completely shut down production. But both export and curtailment drive up Ontario's overall electricity costs:

- **Exporting power is not profitable**—The price that Ontarians pay for electricity is significantly higher than the price Ontario charges its export customers. Export prices are determined by supply and demand in the electricity market, and they are not charged the Global Adjustment fee that Ontario customers pay. From 2009 to 2014, Ontario exported a total of 95.1 million MWh of power to other jurisdictions. The total cost of producing this power was about $3.1 billion more than the revenue Ontario received for exporting it. However, these exports allow Ontario to recover part of the fixed costs that otherwise would have to be paid by Ontario electricity consumers. **Figure 10** shows the amount of power Ontario exported to other jurisdictions from 2009 to 2014, as well as the amount of revenue Ontario received from these exports compared to what the generators are paid to generate the exported power. In 2014 alone, 8.9 million MWh of the 19.1 million MWh (47%) of Ontario's total power exports related to surplus baseload generation. In some

Figure 10: Power Exports and their Related Cost and Revenue, 2009–2014

Source of data: Independent Electricity System Operator



cases, surplus generation was so high that the Hourly Ontario Electricity Price went negative, which meant that Ontario either had to pay other jurisdictions to take its power or simply had to give it away for free. A negative Hourly Ontario Electricity Price indicates that electricity sellers are willing to pay buyers to take their power. This situation is most likely to occur in markets with large amounts of inflexible generation and low demand. An example of inflexible generation is nuclear. It is very hard for nuclear generators to curtail their output. They would incur significant costs if they shut down their facilities—it is cheaper for them not to. Other types of generators, such as renewable generators, are paid fixed prices for their output regardless of hourly energy market conditions, so a negative Hourly Ontario Electricity Price is not an incentive for them to reduce their production (see the next point). From 2009 to 2014, there were 1,952 hours (861 hours in 2014 alone) where Ontario experienced a negative market price and paid exporters a net total of $32.6 million to take our power.

- **Curtailing generation does not curtail costs**—When the IESO asks generators to curtail or shut down their production because there is a surplus of electricity, those generators still have to be paid. From 2009 to 2014, surplus generation of 11.9 million MWh has cost Ontario electricity consumers approximately $339 million.

According to the IESO's electricity production forecast, baseload generation in Ontario from 2015 to 2020 is expected to continue to exceed demand by a total of 52.3 million MWh, an amount that would be enough to power the province of Nova Scotia for about five years. Of this, 41.7 million MWh is expected to be exported through the competitive market while the remaining 10.6million MWh is expected to be curtailed. Ontario's electricity cost is expected to further increase in the future as a result of costly exports and curtailments. **Figure 11** shows the IESO's projected surplus management plan for the period from 2015 to 2025. Although surplus generation is projected to decrease, between the years 2021 and 2032 surplus generation would still be about 2.8 million MWh on average per year, after taking into consideration the shutdown of Pickering and the refurbishment of Darlington and Bruce nuclear units.

4.3.2 Excessive Prices Paid for Renewable Energy

The *Green Energy and Green Economy Act, 2009*, gave the Minister of Energy the authority to expedite the development of renewable energy by superseding many of the government's usual planning and regulatory oversight processes. Since that time, the Ministry has significantly increased the proportion of renewable energy in Ontario's supply mix, but it has done so without fully evaluating the impact, trade-offs and alternatives through a comprehensive business case analysis.

The situation that Ontario is facing now, of rising costs and excess power supply, could likely have been minimized if a proper planning process, drawing on the technical expertise of the OPA and other engineering expertise, and the check-and-balance function of the OEB, had been followed.

Unfortunately, it is electricity consumers who have to cover the rising electricity costs.

Ontario Still Paying Too Much for Renewables

In 2006, Ontario already had a guaranteed-price program for renewable energy whose prices were competitive with market prices. This program was expected to develop 1,000 MW over 10 years, but it exceeded that target in a little more than a year. Despite the program's tremendous success, the Ministry directed the OPA to replace it with a new guaranteed-price renewable program in 2009 (the FIT or Feed-in Tariff Program) to create more clean energy jobs and attract investment to Ontario in the midst of a global recession.

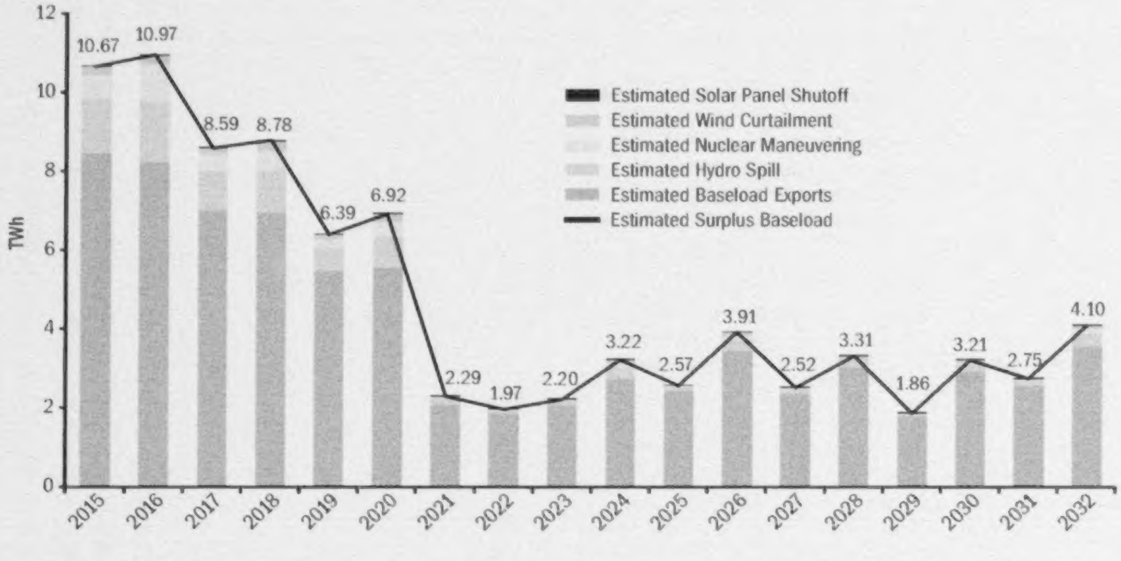
Although global renewable market prices had started to decrease rapidly in 2009 because of technological advances and competition, the Ministry instructed the OPA to offer guaranteed prices that were even higher than those offered by the former guaranteed-price program: 29% higher for solar roof-top projects; 60% higher for solar ground-mounted projects; 73% higher for offshore wind projects; and 23% higher for onshore wind projects.

Not surprisingly, the OPA received an overwhelming response—more than 16,000 applications within the first 10 months of the new guaranteed-price renewable program's launch. We audited renewable energy initiatives in 2011, and in our Annual Report that year we highlighted the lack of regular price adjustments to reflect changing market conditions. Following our audit, the OPA dropped the guaranteed prices for renewables in 2012 and again in 2014. However, we found that Ontario's guaranteed prices in 2014 were still double the current average cost for wind and three and half times the current average cost for solar energy. The Ministry's attractive guaranteed prices program has been one of the main contributors to the surplus power situation Ontario has faced since 2009, in that it has procured too many renewable projects, too quickly, and at too high a cost.

Ontario's current guaranteed-price renewable program prices are still too high. **Figure 12** shows the historic average cost of solar and wind projects

Figure 11: IESO's Surplus Baseload Management Plan, 2015–2032

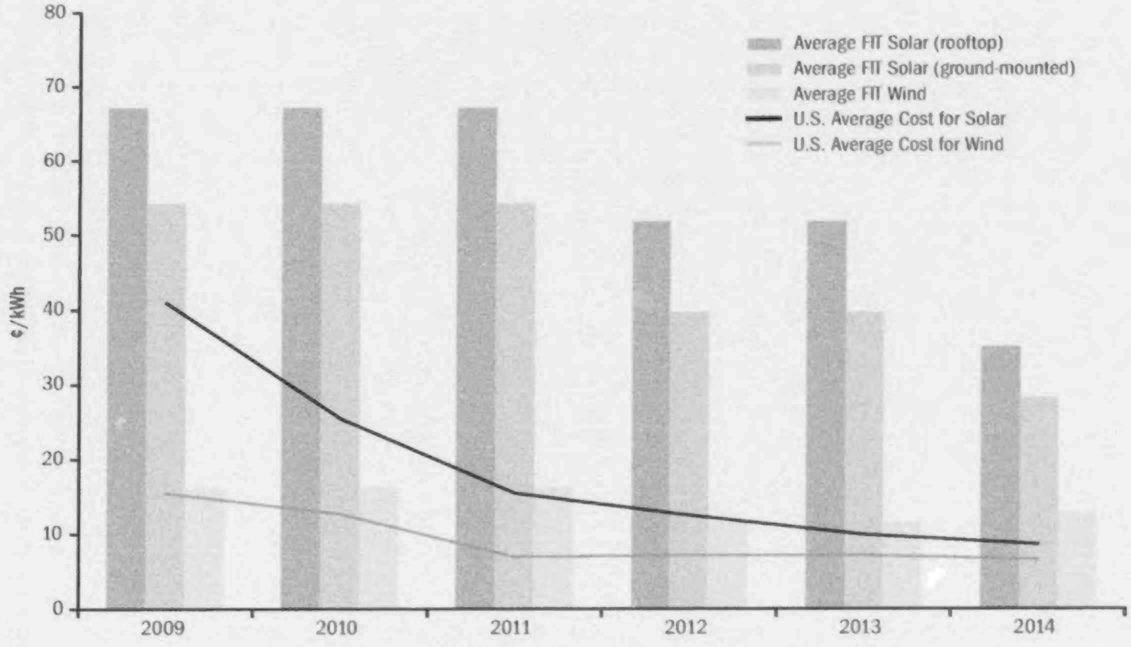
Source of data: Independent Electricity System Operator



Note: This graph shows Ontario's estimated surplus baseload from 2015 to 2032. IESO plans to manage this surplus by either exporting the excess power or requesting some generators (such as hydro, nuclear, wind or solar) to reduce production.

Figure 12: Historical U.S. Average Cost Versus FIT Guaranteed-price Program Prices for Wind and Solar Energy, 2009–2014

Source of data: Independent Electricity System Operator and Lazard Ltd.*



* Lazard Ltd., founded in 1848, is a financial advisory and asset-management firm that operates in 43 cities across 27 countries.

Note: Subsequent to our fieldwork, the IESO announced a price cut for solar projects effective January 2016. The average FIT price for solar rooftop projects decreased by 27% from 34.77¢/kWh to 25.37¢/kWh; for solar ground mount projects, the average FIT price dropped by 25% from 28.20¢/kWh to 21.15¢/kWh.

in the United States. The chart clearly shows that the average costs have dropped significantly, by 78% for solar and 58% for wind since 2009, to reflect technological advances. In comparison, Ontario's guaranteed-price renewable program prices for solar and onshore wind have only decreased by 48% and 5%, respectively. In fact, the current guaranteed-price renewable program price paid to wind producers is even higher than the one offered in the previous 2006 guaranteed-price renewable program.

Renewable Energy Not Procured Competitively

In our 2011 audit of renewable energy initiatives, we calculated that expensive guaranteed-price renewable contracts would cost Ontario electricity consumers about $4.4 billion more over the 20-year contract term than they would have under the former program's guaranteed prices. Taking into consideration new contracts signed since our 2011 report, we estimate this cost has increased to $9.2 billion (the IESO calculates this amount to be closer to $5.3 billion, in order to reflect the time value of money).

If large-scale renewable energy projects had been procured using a competitive procurement process at market prices for wind and solar (see **Figure 12**), the cost to electricity consumers would have been much lower. But, as we noted in 2011, not only did the government not follow the competitive procurement process the OPA recommended for large renewable projects, it offered additional economic incentives along with the already attractive prices offered under the guaranteed-price renewable program to a foreign consortium without first consulting with the OPA.

As well, the Minister of Energy's directions on the guaranteed-price renewable program clearly went beyond policy direction by including instructions on how much renewable energy to procure and the method of procurement to be used.

In 2013 the Ministry revised the guaranteed price renewable program and directed the OPA to develop a new competitive procurement program for large renewable projects. However, by that time the OPA had already procured about 200 projects through the guaranteed-price renewable program (a total of 4,064 MW of power). Using the prices from the previous competitive renewable procurement program, we calculate that if these 200 projects had been competitively procured from the start, Ontario's electricity consumers could have saved approximately $4.7 billion over the life of the contracts (the IESO calculates this amount to be closer to $1.9 billion, in order to reflect the time value of money).

Renewable Energy Not the Most Cost-effective Way to Reduce Greenhouse Gas Emissions

IESO data on greenhouse gas emissions shows that the Ministry's decision to significantly increase the amount of renewable energy in Ontario's supply mix was not the most cost-effective method of reducing greenhouse gas emissions in the province. The Ontario Society of Professional Engineers has also indicated that the current supply mix is not optimal for Ontario's power system design, and that it has resulted in Ontario having surplus generation and increasing curtailments of low-carbon-emission energy, such as hydropower and nuclear, at a considerable cost to electricity consumers. In fact, IESO data shows that Ontario electricity consumers have already paid approximately $339 million for about 11.9 million MWh of curtailed electricity resulting from surplus generation, of which $318 million and 10.7 million MWh relates to nuclear and hydropower. Based on our analysis of the most recent IESO data on greenhouse gas emissions, the implied cost of using non-hydro renewables to reduce carbon emissions in the electricity sector was quite high: approximately $257 million for each megatonne of emissions reduced.

In 2012, Ontario's emissions were estimated to be around 167 Mt total. While the electricity sector's share of emissions was only 14.5 Mt (or 9% of total emissions), the transportation sector and the industrial sector created 34% and 30% of Ontario's emissions, respectively. According to the Ontario Society of Professional Engineers, emission reduction is important, but the cost of reducing emissions from the electricity sector should be evaluated against initiatives taken to reduce emissions from other, higher-emitting sectors such as the transportation industry.

Reducing emissions from cars and trucks could very well be more cost-effective than reducing emissions through phasing out coal plants and procuring renewable energy at expensive prices. However, the Ministry has not studied reducing emissions from other sectors.

Renewable Energy Contributes Less to Meeting Peak Demands While Costing More

"Capacity contribution" is the amount of installed capacity that is available to generate power at a time of peak electricity demand. Ontario's total generating capacity contribution is declining as more renewable resources are added to the supply mix, because renewables like wind and solar have lower capacity contributions. In 2003, about 90% of our total generation capacity was available to contribute to meeting peak-period demands, but this percentage is dropping. It currently sits at 80% and is projected to fall further, to 70% by 2032, as more renewables are added to the supply mix.

Compared to other types of energy resources, renewables like wind and solar tend to contribute less than their installed capacity during peak-demand periods; wind and solar energy are not always reliable because wind and sunshine are intermittent by nature. In Ontario, wind and solar energy have capacity contributions of only 14% and 30%, respectively. This means that wind and solar are only available 14% and 30% of the time, respectively, because of less windy and sometimes cloudy days during the summer when electricity demand is highest. As a result, other resources with higher capacity factors, such as natural gas resources, are needed to meet Ontario's supply requirements. This, paired with Ontario's renewable energy costing more than other types of power generation because of high guaranteed prices, has contributed to higher electricity prices.

An alternative to using natural gas as backup is to explore the possibility of storing renewable energy. However, based on the cost of small-scale storage procured by the IESO to date, the current cost of renewable electricity storage in Ontario is approximately $1 million/MW. The costs for large-scale storage are expected to be significantly higher, which does not make it a financially viable option at this time.

4.3.3 Direction to Proceed with Expensive Hydro Project

In its 2007 Integrated Power System Plan (technical plan), the OPA identified several hydro projects that would meet the Ministry's renewable energy targets, and the Ministry directed it to proceed with some of them. In 2007, the initial estimate for the project was $1.4 billion. In January 2010, the OPA noted that the estimated cost for the Lower Mattagami project had increased substantially to $2.56 billion after conducting further engineering studies. The OPA asked the Ministry for directions because it was concerned about the cost of the project, and wanted to confirm with the Ministry whether or not to proceed given the significant projected cost increase. In February 2010, the Ministry sent a letter to the OPA acknowledging that the cost increase was significant but instructing the OPA to go ahead with the project anyway. According to the Ministry, this project was part of the government's plan to meet the Ministry's renewable targets and to invest in Aboriginal communities and the economy of northern Ontario. The target completion date was September 2014, and the project was completed in December 2014 with final costs reaching over $2.4 billion. According to the IESO, the average cost for this hydro facility is $135/MWh compared to the average cost of $46/MWh for two other recent hydro projects in Ontario outside of the Mattagami River: One of the projects was adding an extension to an existing facility and had a lower cost of $35/MWh; The other project involved building a brand-new facility and had a higher cost of $56/MWh. Based on our review of recent hydro projects in other Canadian jurisdictions, we noted that the $56/MWh is comparable.

4.3.4 Biomass Conversions Not Cost-effective

In the 2013 policy plan, the Ministry directed the OPA to convert a coal plant at Thunder Bay into a biomass facility that burns forestry by-products to create energy. Although the OPA's review found that the conversion would not be cost-effective, the Ministry directed it to proceed with the conversion anyway in December 2013. When we interviewed people from the (former) OPA about this project, they indicated that the Ministry wanted to facilitate growth and job creation in both Ontario's forestry industry and in the Thunder Bay region.

The Thunder Bay biomass facility is a peaking resource expected to operate the equivalent of five full-capacity days in a year while employing 60 full-time staff. This plant is expected to generate only about 15,000 MWh in a year, but at a cost of $40 million per year. This puts the cost of electricity from this facility at around $1,600/MWh—25 times higher than the average cost of existing biomass energy from other facilities in Ontario. In addition, since the imported forestry by-products this plant uses as fuel can only be purchased from outside of Canada, we are concerned that it might not be able to facilitate the volume of job growth in Ontario's forestry industry as the Ministry intends.

In August 2010, the Ministry directed the OPA to negotiate with OPG to convert the coal plant at Atikokan into a biomass facility. Interviewees from the OPA indicated that, in this case, the OPA did not evaluate the cost-effectiveness of the conversion versus other alternatives because the Ministry had already made the decision. The Atikokan biomass facility is also a peaking resource, expected to operate the equivalent of 29 full-capacity days per year while employing 64 full-time staff. The plant is expected to generate 140,000 MWh for $74 million per year, putting the cost of electricity from this facility at $528/MWh—about eight times higher than the average cost of existing biomass from other facilities in Ontario. According to the Ministry, the Atikokan plant is part of the government's plan to replace coal generation with emission-free electricity sources and to facilitate the province's biomass industry as this plant is fuelled by resources that come from Ontario.

4.3.5 Costly Cancellation of Natural Gas Plants

The OPA's 2007 Integrated Power System Plan identified the need for new regional gas-fired generation in the southwest Greater Toronto Area (GTA). In 2008, the Ministry directed the OPA to procure a gas plant there, but later cancelled the project in 2010 at a cost of $675 million (see our 2013 special report, *Oakville Power Plant Cancellation Costs*). The Ministry made a policy decision that went against the OPA's advice and requested the replacement gas plant to be located in Napanee, even though it would cost more to deliver gas to Napanee and then transmit electricity back to the southwest GTA where it was needed. At the time of our audit, construction of the Napanee gas plant had just begun and was not expected to be completed until 2018, leaving southwest GTA's needs unmet.

In 2011, another new gas plant was under construction in Mississauga, both to meet overall generation needs for the province and to address supply needs in the southwest GTA. Later that year, the Minister requested the OPA to begin discussions to cancel the Mississauga plant. In 2012, the Minister announced that the Mississauga plant was to be relocated to Ontario Power Generation's Lambton Generating Station site even though the OPA estimated that locating the Mississauga plant to Lambton would result in higher overall transmission system losses than would have been the case if the plant had been located in the southwest GTA. We estimated that the decision to cancel the Mississauga power plant and relocate it cost about $275 million (see our 2013 special report, *Mississauga Power Plant Cancellation Costs*).

RECOMMENDATION 3

To ensure that future power generation decisions are made with sufficient economic and financial information that would best serve electricity consumers and Ontario's electricity power system, the Ministry of Energy should:

- work with the Independent Electricity System Operator, Ontario Power Generation, Hydro One, approximately 70 local distribution companies and other technical experts to determine the optimal supply mix for Ontario; and
- engage the Independent Electricity System Operator, Ontario Power Generation, Hydro One, approximately 70 local distribution companies and other technical experts to consider different scenarios and evaluate cost-effectiveness when making decisions on new projects;
- conduct cost/benefit analyses during the planning process to assess the potential impact of a decision on electricity consumers and the power system; and
- closely monitor, address, and publicly report on the extent and impact of the oversupply of electricity.

MINISTRY RESPONSE

The Ministry agrees with the Auditor General's recommendation.

On October 28, 2015, the Minister of Energy introduced the *Energy Statute Law Amendment Act, 2015* (Bill 135) that, if passed, would replace the current Integrated Power System Plan (IPSP) process with an enhanced Long Term Energy Plan (LTEP) process. If passed, the proposed legislation would do the following:

- It would enshrine extensive consultations with consumers, stakeholders and Aboriginal groups. These consultations would include seeking input from key sector stakeholders and experts such as transmitters and local distribution companies, as well as the general public. The planning process will allow for technical experts, including agencies, to provide input to the planning process.
- It would ensure the plan will be consistent with the principles of cost-effectiveness, reliability, clean energy, community and Aboriginal engagement, and with an emphasis on conservation and demand management. The proposed legislation enshrines the principle of cost-effectiveness of energy supply and capacity as part of LTEP. In addition, it would require the publication of the LTEP and other key information and data used in its development on a Government of Ontario website.

In addition, following the 2013 LTEP, the Ministry initiated the Ontario Energy Report, which is a website updated quarterly to ensure that reliable and up-to-date energy data on energy supply, demand, and costs is publicly available.

4.4 Ineffective Conservation and Demand-management Initiatives

Conservation aims to reduce overall electricity usage while demand management aims to reduce or shift consumption away from peak demand periods. Both are valuable tools when the electricity supply is unable to meet the expected electricity demand and the cost of new power generation is high; however, neither of these are currently problems in Ontario. As discussed earlier, the problem in Ontario is more often the opposite: periods of surplus capacity (even after considering all the reserve requirements) that result in a costly oversupply of electricity. According to the IESO's forecast, Ontario is projected to have long-term energy surpluses, until 2032. Although surplus generation is projected to decrease after 2020, there would still be about 2.8 million MWh surplus generation on average per year from 2021 to 2032, as shown in **Figure 11**.

When the available electricity supply exceeds the maximum hourly consumption plus the reserve requirements, as it has in Ontario for the past six years, reducing electricity consumption through conservation efforts is of little value. Although we recognize that conservation efforts require sustained commitment, investing in conservation during a time of surplus actually costs us more: the first type of cost is for managing the conservation programs and initiatives themselves; the second is for surpluses and the resulting costly oversupply of electricity those conservation efforts contribute to.

Ontario has spent approximately $2.3 billion on energy conservation efforts targeting both residential and business customers from 2006 to 2014, and has committed to spend another $2.6 billion from 2015 to 2020. At the same time, although electricity consumption in Ontario has decreased (partly due to the impact of the global recession since 2008 and to conservation efforts) by 8%, from 153 million MWh in 2004 to 140 million MWh in 2014, our electricity bills are becoming more expensive: the overall electricity cost has increased by 56%, from $12.2 billion in 2004 to $18.9 billion in 2014. In an online survey the Ministry conducted in 2013, when asked how well their local community was doing to reduce electricity demand, about 40% of respondents indicated that they did not see a lot of evidence of conservation efforts in their community.

Since 2003, Ontario has had an average installed capacity of 33,800 MW. Although Ontario's average electricity demand has only been about 16,700 MW over the years, Ontario has built up the power system (as opposed to importing power) to this point so that it can handle peak demands on rare occasions (for example, summer heat waves) and to meet reserve requirements.

The Ontario Society of Professional Engineers has indicated that a more effective strategy for reducing electricity costs would be to flatten the daily electricity demand, which is to shift demand from peak periods to off peak periods. However, the OPA's conservation programs have not met its peak demand savings target even with the use of smart meters (see **Section 3.11** of our *2014 Annual Report* for a report of our audit of the Smart Metering Initiative), time-of-use billing and other demand-response initiatives.

4.4.1 Peak Demand Consumption Not Effectively Reduced

In its 2005 Supply Mix Advice Report to the Ministry, the OPA estimated achievable conservation potential at somewhere between 1,500 MW and 4,000 MW. According to the Ministry, the OPA chose to rely on the lower end of achievable potential in its advice, because the risk of planning less supply far exceeded the risk of not adjusting to higher conservation. This led the OPA to ultimately advise the Ministry that a peak demand reduction of 1,800 MW by 2025 was a reasonable and prudent conservation target. However, in 2006, the Ministry directed the OPA to take measures to meet a peak demand reduction target of 6,300 MW by 2025. In 2010, the Ministry further increased its peak demand reduction targets, to 6,700 MW by 2025, and 7,100 MW by 2030. It also set an interim target to reduce peak demand 4,550 MW by 2015. However, despite the $2.3 billion spent on conservation initiatives, the amount of peak demand reduction achieved so far is estimated to be only 3,619 MW by the end of 2014, short of the 4,550 MW target. This number is an estimate because peak demand achieved by OPA-managed programs accounts for only 1,512 MW of the 3,619 MW. The remaining 2,107 MW reflects peak demand reductions achieved by programs funded and managed by other entities, such as the federal government and gas utilities. The IESO is not authorized to evaluate these programs because it does not manage or deliver them; therefore it is not able to confirm the 2,107 MW of peak demand reductions achieved.

4.4.2 Many Conservation Initiatives Not Cost-effective or Not Evaluated for Cost-effectiveness

The IESO was accountable for $2.1 billion of the $2.3 billion that was spent on conservation initiatives in Ontario from 2006 to 2014. However, only about $923 million of this $2.1 billion has been evaluated by a third party for cost-effectiveness. Another estimated $400 million of electricity conservation and demand management program spending that occurred in 2014 will be evaluated in 2015. The remaining $758 million, or 36%, has not been subject to a third-party evaluation.

When evaluated collectively at the portfolio level, the conservation initiatives passed the IESO's cost-effectiveness tests. However, on an individual basis, about half (18) of the 37 conservation initiatives that were evaluated did not pass cost-effectiveness tests. The tests compared the cost of designing and delivering programs and customers' costs with the amount of electricity conserved and other supply-side resource costs (a conservation program is regarded as cost-effective only if its cost is less than the avoided cost of electricity). According to the Ministry, between 2006 and 2010, its focus was on building conservation capacity and expanding program delivery to targeted sectors. In 2011, a requirement was put in place to pass cost-effectiveness tests on a portfolio basis.

Furthermore, the IESO's cost-effectiveness calculation only included costs that had already been paid at the time of the evaluation (sometimes, a program completed in 2014 may not be completely paid out until 2015 or 2016—these programs may be evaluated in 2014 using only costs paid up to 2014). The costs incurred on the 37 evaluated conservation initiatives were $1,192 million, but we found that the IESO's cost-effectiveness evaluations only captured $923 million (77%) of the total costs of these initiatives.

4.4.3 Extending the Industrial Electricity Incentive Program until 2025 Will Cost $300 Million

In 2012, the Ministry directed the OPA to implement an Industrial Electricity Incentive (IEI) Program aimed at increasing industrial electricity usage as a means of reducing surplus power. The IEI program offers contracts to specific industrial consumers for a set amount of energy at reduced electricity rates. The entire program has a cap of up to five million MWh of annual electricity consumption.

The original end date of the IEI program was to coincide with the end of the significant surplus power period in 2020, but the Ministry has extended the program up to the end of 2024 in order to offer a contract term that is sufficiently long to attract applicants. While the IEI program may deter some businesses from leaving the province and moving south where electricity rates are lower, extending it past 2020 when there will no longer be an energy surplus for it to draw on will increase peak demand and, in turn, increase system costs by as much as $300 million, according to the Ministry's estimate.

RECOMMENDATION 4

To ensure that its conservation and demand management programs are implemented cost-effectively and achieve their intended purposes, the Ministry of Energy should work with the Independent Energy System Operator to:

- assess the effects of conservation and its impact on electricity costs during surplus generation periods;
- evaluate programs, such as various conservation initiatives and the Industrial Electricity Incentive Program, to ensure that they support the Ministry's goals and objectives; and
- set appropriate and reasonable peak consumption reduction targets, and regularly monitor, track and publicly report on the progress made in meeting them.

MINISTRY RESPONSE

The Ministry and the Independent Electricity System Operator (IESO) are committed to the on-going evaluation of programs to ensure they support provincial needs. The new 2015 Conservation First Framework (CFF) increases the rigour of program cost effectiveness requirements. As per the requirement of the new Framework, all local distribution companies (LDCs) have submitted Conservation and Demand Management Plans to the IESO. The programs within the plans are all individually subject to cost effectiveness tests (with specific exceptions, for example, low income programs) and to a high degree of oversight with ongoing Evaluation, Measurement and Verification by the IESO. Furthermore, the new Framework encourages collaboration among LDCs, and between CFF and natural gas Demand Side Management Framework programs, to achieve efficiencies and convenient integrated programs for customers. The new Framework also recognizes the value of measures that result in peak demand reductions, by accounting for the higher value of savings achieved during peak periods in cost effectiveness tests.

Public reporting of energy savings and peak demand reduction will continue through quarterly Ontario Energy Reports as well as annual conservation results reports released separately by the IESO and the Environmental Commissioner of Ontario.

Conservation requires a sustained commitment to ensure persistent savings and a reduction of demand for electricity over the long term. The 2013 LTEP set a conservation target of 30 TWh by 2032 which is expected to result in 5,868 MW of peak demand reduction and a goal to use demand response to meet 10% of peak demand by 2025. Working with the IESO, the Ministry will continue to review Ontario's supply-demand balance as part of the LTEP planning process, adjusting targets as required.

4.5 Problems with Transmission System Planning

4.5.1 Transmission Problems in Some Regions Outstanding for Years

Although there has been a structured regional power system planning process in place since October 2013 that involves the Ministry, the OEB, the IESO, communities, Hydro One, and local distributors, before 2013 regional planning was done on an ad hoc basis, initiated based on priority and following informal processes between the OPA, Hydro One and four other small transmitters, and local distributors. For this reason, many of the projects currently being worked on as part of the new process are specific projects initiated to address short-term needs. The estimated cost of transmission work underway so far in five different regions under the new process is approximately $54 million.

The OPA's 2007 Integrated Power System Plan, which was not reviewed by the Ontario Energy Board, identified capacity and reliability problems in the following regions, which have not yet been resolved:

- **Kitchener-Waterloo-Cambridge-Guelph** — This region needs a number of transmission upgrades. The majority of the transmission lines delivering power to this area have exceeded, reached or are close to reaching their capacity. A three-hour service interruption in this area in 2012 would have been avoided had a transmission refurbishment project been completed on time. At the time of our audit, Hydro One was still working on this project and expected to complete it in spring 2016.
- **Windsor-Essex** — There are supply capacity, transmission capacity and security of supply issues in this region—a large portion of the area has reliability issues. Hydro One is currently working on a $77.6 million transmission reinforcement project in the region, but it is not scheduled to come into service until 2018.

In addition, the electrical infrastructure for the northern part of the Greater Toronto Area West region is nearing capacity and is not expected to be capable of meeting significant increases in peak demand. The 2015 regional plan again identified the need for transmission upgrades in this region, which Hydro One is currently reviewing.

4.5.2 Not Enough Capacity to Connect Renewable Generators

A total of 2,585 non-hydro renewable projects that received conditional offers from the OPA under the microFIT (projects 10kW or less) stream of the guaranteed price program had to be relocated to other parts of Ontario because there was not enough transmission capacity to connect them to the power grid.

Non-hydro renewable energy projects take about two to three years to complete, but transmission projects take much longer—about four to seven years. When the current guaranteed price renewable program was first launched in 2009, the OPA gave applicants conditional offers with guaranteed prices before the projects were approved by their local distribution companies to connect to the transmission grid. When it found that the projects could not be connected to the grid, the OPA was directed to compensate those guaranteed price renewable program applicants by allowing those with more than one constrained project to combine their small (microFIT) projects and relocate to another area with the capacity to connect them. These applicants were still paid the higher guaranteed microFIT contract prices for small projects even though the size of their combined projects now meant that the lower guaranteed FIT contract prices for larger projects should have applied. Electricity consumers could have saved $250 million if these combined projects had been offered the guaranteed prices appropriate to their project size (the IESO calculates this amount to be closer to $126 million, in order to reflect the time value of money).

4.5.3 Significant Increase in Compensation Payments to Generators for Turning Power Generation On or Off

Transmission congestion occurs when power flows are limited by the transfer capability of one or more transmission elements. It is reasonable to expect some transmission congestion, because a congestion-free transmission system would be too costly to maintain and would indicate under-utilization of transmission assets. Conversely, a heavily congested transmission system is also costly to operate, because when transmission lines are congested and operating at or near their limits, resources have to be dispatched more often and at higher marginal costs, relatively higher line losses and a higher risk of not being able to serve the load.

The IESO may request generators to turn their power generation on or off (otherwise known as "constraining output") for a number of reasons, including transmission congestion, physical ramping limits, safety equipment issues, and environmental issues. While the IESO maintains data on generator constrained volumes, it could not break down that data to identify the reasons for the constraint requests.

Generators are usually entitled to compensation payments when the IESO is required to constrain the output of generation facilities. In recent years, the amount of compensation the IESO has had to pay generators for constraining has increased significantly because the volume of requests to constrain has gone up: from 2009 to 2016, a total of $[illegible] million in compensation has been paid out. In 2016 alone, generators were compensated $[illegible] million—an increase of [illegible]% since 2009.

We found that constrained volumes have significantly increased, from [illegible] GWh in 2009 to [illegible] GWh in 2016 (an increase of [illegible]%) despite electricity demand remaining relatively stable. The Bruce and North East regions have experienced particularly large increases in constrained volumes ([illegible]% and [illegible]%, respectively) from 2009 to 2016. The West region has also been experiencing significant generator output constraints consistently with no improvement over time. The IESO informed us that changes in regional demand and changes in the supply mix to support the phasing out of coal along with significant increases of renewable energy have changed flow patterns in the power system, contributing to increases in transmission constraints in recent years.

In May 2017, the IESO completed a review of Ontario's wholesale energy market pricing system. The review found that opportunities exist to reduce electricity market costs through changes to the current system. In an effort to achieve these cost reductions, the IESO indicated that it intends to engage stakeholders and to examine some key components of the existing market design.

4.5.4 No Detailed Business Case for Importing Renewable Energy

When the Ministry decided to create the current guaranteed-price renewable program in 2009, it had not fully considered other options for getting more renewable energy into the supply mix, such as importing renewable energy in the form of hydro-power from neighbouring provinces such as Quebec and Manitoba. The Quebec intertie has up to [illegible] MW of import capabilities available, and up to [illegible] MW from Manitoba could be called upon to meet local area needs in northwestern Ontario. Although the OPA has conducted a number of assessments to evaluate the benefits of imports, it has never prepared a detailed business case or cost-benefit analysis of increasing Ontario's transmission capacity to accommodate contracted imports against procuring other renewable energy alternatives such as wind and solar.

Six years after creating an expensive Feed-in Tariff Program and procuring significant amounts of renewable energy that consumers will continue to pay for through the Global Adjustment, Ontario has decided to sign a contract with Quebec to exchange electricity and to consider importing power from Newfoundland and Labrador. Starting in late 2015, Ontario will make 500 MW of electricity capacity available to Quebec in the winter, when demand in that province peaks. Likewise, beginning in the summer of 2020, Quebec will make 500 MW available to Ontario when Ontario's demand peaks in hot weather. The government's aim in creating this arrangement is to help Ontario reduce costs by lessening the need to build new electricity generating stations after 2020.

RECOMMENDATION 5

To ensure that Ontario's transmission system has sufficient capacity to reliably transfer electricity from the province's generators to where power is needed, the Ministry of Energy should work with the Independent Electricity System Operator, Hydro One and other local distribution companies to:

- address current capacity and reliability issues, and identify what is required to support future electricity demand growth;
- investigate the root causes of the increasing volume of generator constraints and thereby minimize any unnecessary cost to electricity consumers; and
- perform adequate system planning and analysis prior to undertaking any major initiatives that would impact transmission.

MINISTRY RESPONSE

The Ministry agrees with the Auditor General's recommendation.

On October 28, 2015, the Minister of Energy introduced the *Energy Statute Law Amendment Act, 2015* (Bill 135) that, if passed, would replace the current Integrated Power System Plan (IPSP) process with an enhanced Long Term Energy Plan (LTEP) process. The proposed legislation would, if passed, ensure that the goals and objectives of the LTEP would include respecting the reliability of energy supply and capacity, transmission and distribution. This planning process will consider impacts on generators, transmitters and distributors, as well as the impact the LTEP could have on ratepayers. The Ministry will work with the Independent Electricity System Operator (IESO) and technical experts as well as stakeholders when creating the LTEP.

In addition to the proposed legislation which would create a framework to address system needs, Ontario also began a formalized regional planning process in 2013 governed by the Ontario Energy Board in 21 electricity planning regions. The process, led by the IESO, works with local distribution companies (LDCs) and transmitters to ensure regional issues and requirements are effectively integrated into electricity planning.

The Ontario Power Authority (now the IESO) played a key role in the development of the 2010 and 2013 LTEPs by providing technical advice and analysis, including forecasting electricity demand over the planning period, and recommending development of transmission projects to address forecast demand and maintain system reliability. Hydro One, other transmitters and other LDCs also provided information and input that was used to develop the LTEPs.

Regarding the recommendation to investigate the volume of generator constraints, the Ministry would like to note that in May 2015, the IESO completed a review of Ontario's wholesale energy market pricing system, sometimes referred to as the "two schedule price setting system," which is used to determine prices and dispatch generators in the IESO-administered market. The review found that opportunities likely exist to reduce electricity market costs through changes to the current system. In an effort to achieve these cost reductions, the IESO intends to engage stakeholders and re-examine some key components of the existing market design.

Appendix 1—Key Events Relating To Electricity Power System Planning

Prepared by the Office of the Auditor General of Ontario

December 2004
Government passes *Electricity Restructuring Act* (Act). Act renames Independent Electricity Market Operator the Independent Electricity System Operator (IESO) and amends IESO's duties to short-term forecasting of electricity demand and resources only. Act also creates Ontario Power Authority (OPA) to address long-term power system planning issues and conduct independent planning for electricity generation, demand management, conservation and transmission. OPA is tasked with developing an integrated long-term electricity plan (IPSP), a 20-year technical plan for achieving the province's energy goals. OPA is to submit IPSP to Ontario Energy Board (OEB) for review and approval and update the plan every three years.

December 2005
OPA issues Supply Mix Advice Report to Minister of Energy.

June 2006
Minister of Energy issues first Supply Mix Directive to OPA.

August 2007
OPA submits first Integrated Power System Plan (IPSP) to OEB.

2008
OEB suspends its review of IPSP in October after Minister of Energy issues amended Supply Mix Directive in September. Global recession begins toward the end of 2008.

2009
Green Energy Act encourages renewable energy generation, energy conservation, and creation of clean-energy jobs.
Ontario launches Feed-in Tariff (FIT) Program.

November 2010
Minister of Energy releases first Long-term Energy Plan (LTEP).

2011
Minister of Energy issues new Supply Mix Directive and directs OPA to prepare updated IPSP. OPA forwards draft IPSP to Ministry for review but it is never submitted to the OEB.

2012
In April, Minister of Energy introduces legislation to merge OPA and IESO and change the process for long-term power system planning. Merger is put on hold when Premier resigns in October.

December 2013
Minister of Energy releases updated LTEP.

2014
Bill 194, an act to implement budget measures, is introduced, calling for OPA and IESO to be amalgamated.

January 1, 2015
Electricity Act, 1998, is amended and post-merger IESO is tasked with power system planning for Ontario.

June 4, 2015
The government passes the *Building Ontario Up Act*, under which Hydro One Inc. and its subsidiaries are deemed not to be agencies of the Crown. As such, as of December 2015, no independent Officer of the Legislative Assembly has the authority to oversee Hydro One's operations (for example, the Auditor General can no longer conduct performance audits of Hydro One or its subsidiaries).

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

Appendix 2—List of All Generating Facilities in Ontario as of 2014

Source of data: Independent Electricity System Operator

Facility	Fuel Type	Location/Region	Capacity (MW)
Atikokan Generating Station	Bioenergy	Northwest Ontario	205.0
Fort Frances	Bioenergy	Northwest Ontario	47.0
Thunder Bay Condensing Turbine Project	Bioenergy	Northwest Ontario	40.0
Calstock Power Plant	Bioenergy	North/East of Sudbury	38.0
Non-Utility Generators	Bioenergy	GTA	35.0
Becker Cogeneration Plant	Bioenergy	Northwest Ontario	8.0
Chapleau Co-Generation Facility	Bioenergy	East Lake Superior	7.0
Trail Road Landfill Generating Facility (Fallowfield PowerTrail)	Bioenergy	Greater Ottawa	5.0
Eastview Landfill Gas Energy Plant (Campbell)	Bioenergy	Kitchener Waterloo Cambridge Guelph	2.5
DrydenWhrhsr	Bioenergy	Northwest Ontario	2.5
Hamilton (Digester Gas) Cogeneration Project	Bioenergy	Burlington to Nanticoke	1.6
Guaranteed Price Renewable Projects (RESOP, FIT, MicroFit)	Bioenergy, Hydroelectricity, Solar, Wind	Distributed across Ontario	3,235.2
Essar Cogeneration Facility	Gas byproduct	East Lake Superior	63.0
Lennox Generating Station	Gas	Peterborough to Kingston	2,100.0
Non-Utility Generators	Gas	Distributed across Ontario	1,555.4
Greenfield Energy Centre	Gas	Chatham/Lambton/Sarnia	1,153.0
Goreway Station	Gas	GTA West	942.0
Halton Hills Generating Station	Gas	GTA West	757.0
St. Clair Energy Centre	Gas	Chatham/Lambton/Sarnia	678.0
Portlands Energy Centre	Gas	Toronto	639.1
Brighton Beach Power Station	Gas	Windsor/Essex	580.0
Sarnia Regional Cogeneration Plant	Gas	Chatham/Lambton/Sarnia	510.0
York Energy Centre	Gas	GTA North	438.0
Thorold Cogen	Gas	Niagara	287.0
GTAA Cogeneration Plant	Gas	GTA West	117.0
East Windsor Cogeneration	Gas	Windsor/Essex	100.0
London Cogeneration Facility	Gas	London Area	12.0
Great Northern Tri-Gen Facility	Gas	Windsor/Essex	11.3
Sudbury District Energy, Hospital Cogeneration	Gas	Sudbury/Algoma	6.7
Trent Valley Cogeneration Plant	Gas	Peterborough to Kingston	6.7
Sudbury District Energy Cogeneration Plant	Gas	Sudbury/Algoma	5.0
Warden Energy Centre	Gas	GTA North	5.0
Bur Oak Energy Centre	Gas	GTA North	3.3
Birchmount Energy Centre	Gas	GTA North	2.6
Durham College District Energy	Gas	GTA East	2.3
Villa Colombo Vaughan	Gas	GTA North	0.2
Other (back-up generators)	Oil	Distributed across Ontario	50.5

Facility	Fuel Type	Location/Region	Capacity (MW)
Greenhouse Generators in Leamington area	Oil	Windsor/Essex	12.6
Ontario Power Generation Hydro Facilities (65 Facilities)	Hydroelectricity	Distributed across Ontario	6,426.0
Smoky Falls Generating Station (redevelopment)	Hydroelectricity	North/East of Sudbury	264.0
Wells Generating Station	Hydroelectricity	Sudbury/Algoma	242.0
Harmon Generating Station	Hydroelectricity	North/East of Sudbury	219.0
Little Long Generating Station	Hydroelectricity	North/East of Sudbury	212.0
Aubrey Falls Generating Station	Hydroelectricity	Sudbury/Algoma	155.0
Kipling Generating Station	Hydroelectricity	North/East of Sudbury	155.0
Non-Utility Generators	Hydroelectricity	Distributed across Ontario	123.3
DAWatson (McPhail, Dunford, Scott)	Hydroelectricity	East Lake Superior	80.3
Kipling Expansion	Hydroelectricity	North/East of Sudbury	79.0
APIroquois (Island Falls, Iroquois Falls, Twin Falls)	Hydroelectricity	North/East of Sudbury	70.0
MacKay Generating Station	Hydroelectricity	East Lake Superior	58.0
Smoky Falls Generating Station	Hydroelectricity	North/East of Sudbury	53.0
Clergue Generating Station	Hydroelectricity	East Lake Superior	51.9
Andrews Generating Station	Hydroelectricity	East Lake Superior	50.0
Rayner Generating Station	Hydroelectricity	Sudbury/Algoma	47.5
Red Rock Falls Generating Station	Hydroelectricity	Sudbury/Algoma	41.6
Kenora (Kenora, Norman)	Hydroelectricity	Northwest Ontario	31.6
Lac Seul/Ear Falls Generating Station	Hydroelectricity	Northwest Ontario	29.3
Maletkraft	Hydroelectricity	North/East of Sudbury	27.5
Umbata Falls Generating Station	Hydroelectricity	Northwest Ontario	24.0
Hollingsworth Generating Station	Hydroelectricity	East Lake Superior	23.0
Gartshore Generating Station	Hydroelectricity	East Lake Superior	20.0
Domtar, Espanola Mill	Hydroelectricity	Sudbury/Algoma	18.0
Hogg Generating Station	Hydroelectricity	East Lake Superior	16.0
Healey Falls Generating Station	Hydroelectricity	Peterborough to Kingston	15.7
Steephill Generating Station	Hydroelectricity	Northwest Ontario	15.5
Mission Generating Station	Hydroelectricity	East Lake Superior	15.0
Wawaitin Generating Station	Hydroelectricity	North/East of Sudbury	15.0
Lower Sturgeon Generating Station	Hydroelectricity	North/East of Sudbury	14.0
Harris Generating Station	Hydroelectricity	East Lake Superior	12.5
Calm Lake Generating Station	Hydroelectricity	Northwest Ontario	11.0
Fort Frances Generating Station	Hydroelectricity	Northwest Ontario	10.0
Hound Chute Generating Station	Hydroelectricity	North/East of Sudbury	9.6
Chaudiere No. 4 Generating Station	Hydroelectricity	Greater Ottawa	9.3
Sturgeon Falls Generating Station	Hydroelectricity	Northwest Ontario	9.0
Chaudiere No. 2 Generating Station	Hydroelectricity	Greater Ottawa	8.4
Glen Miller Generating Station	Hydroelectricity	Peterborough to Kingston	8.0
Tembec, Smooth Rock Falls Facilities	Hydroelectricity	North/East of Sudbury	8.0
Swift Rapids Generating Station	Hydroelectricity	South Georgian Bay/Muskoka	7.9

Facility	Fuel Type	Location/Region	Capacity (MW)
Heywood Generating Station	Hydroelectricity	Niagara	7.2
Ragged Chute Eco Power Centre	Hydroelectricity	North/East of Sudbury	6.6
West Nipissing Power Generation	Hydroelectricity	North/East of Sudbury	6.5
Sandy Falls Generating Station	Hydroelectricity	North/East of Sudbury	5.5
Auxable	Hydroelectricity	North/East of Sudbury	4.7
London Street Generating Station	Hydroelectricity	Peterborough to Kingston	4.1
Minden Generating Station	Hydroelectricity	South Georgian Bay/Muskoka	4.0
Stanley Adamson Powerhouse	Hydroelectricity	Peterborough to Kingston	3.9
Matthias Generating Station	Hydroelectricity	South Georgian Bay/Muskoka	3.0
Wilson's Falls	Hydroelectricity	South Georgian Bay/Muskoka	2.9
Bracebridge Falls Generating Station	Hydroelectricity	South Georgian Bay/Muskoka	2.6
Jones Falls	Hydroelectricity	St. Lawrence	2.4
1149377 Ontario Limited	Hydroelectricity	Sudbury/Algoma	2.3
Campbellford-Seymour Electric Generation Inc.	Hydroelectricity	Peterborough to Kingston	2.0
Rideau Falls	Hydroelectricity	Greater Ottawa	2.0
Kingston Mills	Hydroelectricity	Peterborough to Kingston	1.9
Chiblow Lake Generating Station	Hydroelectricity	Sudbury/Algoma	1.7
Galetta Eco Power Centre	Hydroelectricity	Greater Ottawa	1.6
Appleton Eco Power Centre	Hydroelectricity	Greater Ottawa	1.4
Moose Rapids Generating Station	Hydroelectricity	Sudbury/Algoma	1.4
Water Street Pumphouse	Hydroelectricity	Peterborough to Kingston	1.3
Parry Sound PowerGen Corporation	Hydroelectricity	South Georgian Bay/Muskoka	1.2
Burk's Falls	Hydroelectricity	South Georgian Bay/Muskoka	1.1
Marmora Generating Station	Hydroelectricity	Peterborough to Kingston	1.0
Renfrew Power Generation Inc. – Lower Plant	Hydroelectricity	Renfrew	1.0
Renfrew Power Generation Inc. – Upper Plant	Hydroelectricity	Renfrew	1.0
Brewers Mills	Hydroelectricity	St. Lawrence	0.9
High Falls Generating Station	Hydroelectricity	South Georgian Bay/Muskoka	0.8
Kagawong Generating Station	Hydroelectricity	Sudbury/Algoma	0.8
Gananoque	Hydroelectricity	St. Lawrence	0.7
Long Slide Generating Station	Hydroelectricity	North/East of Sudbury	0.7
Shand Dam Generating Station	Hydroelectricity	Kitchener Waterloo Cambridge Guelph	0.7
Conestogo Dam Generating Station	Hydroelectricity	Greater Bruce/Huron	0.6
Hurdman Dam	Hydroelectricity	North/East of Sudbury	0.6
Maple Hill	Hydroelectricity	Greater Bruce/Huron	0.6
Truisler Chute Generating Station	Hydroelectricity	South Georgian Bay/Muskoka	0.6
York River Generating Station	Hydroelectricity	Renfrew	0.6
Casselman Generating Station	Hydroelectricity	Greater Ottawa	0.5
Current River Hydro	Hydroelectricity	Northwest Ontario	0.5
Devil's Gap Generating Station	Hydroelectricity	South Georgian Bay/Muskoka	0.5
635294 Ontario Inc.	Hydroelectricity	North/East of Sudbury	0.5

Facility	Fuel Type	Location/Region	Capacity (MW)
Drag River Generating Station	Hydroelectricity	South Georgian Bay/Muskoka	0.3
Enerdu Power Systems Ltd.	Hydroelectricity	Greater Ottawa	0.3
Saugeen Generating Station	Hydroelectricity	Greater Bruce/Huron	0.3
Little Burgess Generating Station	Hydroelectricity	South Georgian Bay/Muskoka	0.2
Stewart Generating Station	Hydroelectricity	Greater Ottawa	0.2
Tweed Generating Station	Hydroelectricity	Peterborough to Kingston	0.2
Washburn	Hydroelectricity	St. Lawrence	0.2
Barrie Small Hydro Limited	Hydroelectricity	Greater Ottawa	0.1
Scone Generator	Hydroelectricity	Greater Bruce/Huron	0.1
Bruce Power Nuclear Generating Station	Nuclear	Greater Bruce/Huron	6,329.0
Darlington Nuclear Generating Station	Nuclear	GTA East	3,524.0
Pickring Nuclear Generating Station	Nuclear	GTA East	3,094.0
South Kent Wind (KoreanConsortium)	Wind	Chatham/Lambton/Sarnia	270.0
Wolfe Island Wind Project	Wind	Peterborough to Kingston	198.0
Enbridge Ontario Wind Farm	Wind	Greater Bruce/Huron	182.0
Grand Renewable Energy Park	Wind	Burlington to Nanticoke	148.6
Melancthon II Wind Plant	Wind	South Georgian Bay/Muskoka	132.0
Kruger Energy Port Alma Wind Power Project	Wind	Windsor/Essex	101.2
Kruger Energy Chatham Wind	Wind	Windsor/Essex	101.1
Erie Shores Wind Farm	Wind	London Area	99.0
Greenwich Wind Farm	Wind	Northwest Ontario	99.0
Prince I Wind Power Project	Wind	East Lake Superior	99.0
Talbot Wind Farm	Wind	Chatham/Lambton/Sarnia	98.9
Prince II Wind Power Project	Wind	East Lake Superior	90.0
Raleigh Wind Energy Centre	Wind	Chatham/Lambton/Sarnia	78.0
Ripley Wind Power Project	Wind	Greater Bruce/Huron	76.0
Melancthon I Wind Plant	Wind	South Georgian Bay/Muskoka	67.5
Gosfield Wind Project	Wind	Windsor/Essex	50.0
Kingsbridge I Wind Power Project	Wind	Greater Bruce/Huron	39.6
Total			**37,313.0**

Appendix 3—Glossary of Terms

Prepared by the Office of the Auditor General of Ontario

Baseload Demand—The continuous minimum demand for electrical power.

Baseload Resources—Generation sources that are designed to operate continuously, such as nuclear and many types of hydro.

Bioenergy—Energy produced from biomass—living or recently living plant or animal sources such as waste wood, agricultural residues, animal manure, food processing by-products, and kitchen waste.

Capacity Contribution—The amount of capacity available to generate power at a time of peak electricity demand.

Curtailment—A reduction in the output of electricity generators ordered by the Independent Electricity System Operator (IESO) to mitigate an oversupply of electricity.

Demand Management—Measures undertaken to control the level of energy use at a given time, by increasing or decreasing consumption or shifting consumption to some other period.

Demand Savings—A reduction in the total supply of electrical resources needed by Ontario to meet peak demand.

Dispatchable Generation—Generation sources that can increase or decrease their output when requested as demand fluctuates or the availability of other sources changes. Dispatchable generators submit offers to supply electricity in different quantities and prices for each hour of the day. They must be able to adjust the amount of electricity they generate in response to new instructions issued every five minutes by the IESO. An example of a dispatchable generation source is natural gas.

Distribution—Moving energy from the transmission system and delivering it to customers. The distribution network includes medium-voltage power lines, substations, pole-mounted transformers, low-voltage wiring, and electricity meters.

Electricity Commodity Charge—Incorporates both the Hourly Ontario Energy Price and Global Adjustment fees, shown on consumer electricity bills as Electricity Charge.

Energy Savings—A reduction in the overall supply of electrical resources needed by homes, businesses and institutions in Ontario.

Guaranteed Price Renewal Program—A program to procure renewable energy launched in September 2009 under the direction of the Minister of Energy, providing renewable energy generators with significantly higher contract prices than the previous standard offer program which it replaced. The program has two streams: the FIT Program is for projects more than 10kW; the microFIT program is for projects 10kW or less.

Installed Capacity—The maximum intended power output from a facility.

Intermittent Power Generation—Sources of electricity that produce power at varying times, such as wind and solar generators whose output depend on wind speed and solar intensity.

Kilowatt (kW)—A standard unit of power equal to one thousand watts (W).

Kilowatt-hour (kWh)—A way of measuring energy production or consumption over time. A Kilowatt-hour measures one thousand watts produced or consumed in one hour.

Load—The electricity used by consumers or devices connected to an electrical generating system.

Local Distribution Company—A utility that owns/operates a distribution system for the local delivery of energy to consumers.

Megawatt (MW)—A standard unit of power equal to one thousand kilowatts (kW) or one million watts (W).

Megawatt-hour (MWh)—A way of measuring energy production or consumption over time. A Megawatt-hour (MWh) measures one million watts produced or consumed in one hour.

Operating Reserves—Standby power for dealing with unexpected power loss.

Peaking Resources—Generation sources typically designed to run only to meet peak demand (periods where demand is significantly higher than the average supply of electricity) during the day, such as natural gas.

Planning Reserves—Standby power to satisfy future demand and account for uncertainties such as economic conditions and weather forecasts.

Smart Meter—An electronic device that records consumption of electricity in intervals of an hour or less and communicates that information back to the utility for billing and monitoring.

Supply Mix—The different types of resources that are used to meet the demand for electricity in a jurisdiction. Ontario has a diversified mix of resources that work together to meet our electricity demands from hour to hour, year-round: bioenergy, hydroelectricity, natural gas, nuclear, solar and wind.

Surplus Baseload Generation (SBG)—When the electrical power produced by Ontario's baseload generators exceeds Ontario's electricity demand.

Terawatt-hour (TWh)—A unit for measuring energy production or consumption over time, equal to one million megawatt-hours. Ontario's electricity consumption in 2014 was 139.8TWh.

Transmission—The movement of electricity at high voltages from generation sites to local distribution systems and consumers.

Chapter 3

Section 3.06

Hydro One—Management of Electricity Transmission and Distribution Assets

1.0 Background

1.1 Overview

Hydro One Inc., one of the largest electricity delivery systems in North America, has three key reportable segments:

- **Transmission**: Hydro One Networks Inc. transmits electricity through its 29,000-kilometre high-voltage transmission network that sends electricity from power generators to approximately 90 large industrial customers and 47 of the 71 local distribution companies (LDCs), or utilities, in Ontario, as well as to Hydro One's local distribution business;
- **Distribution**: Hydro One Networks Inc. also delivers and sells electricity to residential and industrial customers through its 123,000-kilometre low-voltage distribution system that serves as the LDC for about 1.4 million customers mostly in smaller municipalities and rural areas throughout the province and serving 28% of all customers in Ontario. (This is different than most other distributors, which typically service larger urban and surrounding areas. Hydro One has an average of 11 customers for each kilometre of distribution line, whereas the average for the four largest LDCs in Ontario is 51.) It also sends electricity to the remaining 24 smaller LDCs not directly serviced by the transmission network; and
- **Telecommunications**: Hydro One Telecom Inc. manages a telecommunications system that allows Hydro One to monitor and remotely operate its transmission system equipment. Telecommunications services are also sold to large resellers and corporate users.

The Ontario electricity grid is a network of power generators and consumers connected by high-voltage transmission towers and lines and low-voltage distribution lines. Hydro One owns and operates 96% of the province's electricity transmission system, with the remaining 4% being owned by four private-sector corporations. The transmission system collects electricity from generators and sends it via high-voltage transmission towers and lines to transformer stations, where the electricity is converted to a lower voltage and then travels from the transformer station to an LDC or a large industrial client.

LDCs own and operate the low-voltage lines that distribute or deliver power to homes and businesses. As of December 31, 2014, there were 71 LDCs across the province that were mainly owned by the municipalities they service, in addition to Hydro One Networks distribution system operations (for the rest of this report, we refer to 72 LDCs because we include Hydro One Networks as an LDC). This includes Hydro One Brampton Networks Inc., a wholly owned subsidiary of Hydro One Inc., which operates as a standalone LDC serving the City of Brampton area. In addition, Hydro One Remote Communities Inc. operates standalone generation and distribution systems for 21 remote northern Ontario communities serving 3,500 customers.

Figure 1 shows the organization and the roles and responsibilities of key entities, including Hydro One, involved in the electricity system in Ontario, covering policy formulation, planning, generation, pricing, regulation, transmission and distribution. (See **Section 3.05** of this year's Annual Report for our audit of the Ministry of Energy's Electricity Power System Planning.)

Hydro One's mandate is to be a safe, reliable and cost-effective transmitter and distributor of electricity. The corporation is subject to direction from its sole shareholder, the government of Ontario, and operates in accordance with governing legislation and regulations, particularly the *Electricity Act, 1998*. The board of directors is responsible for the stewardship of the company and supervision of management.

Hydro One's transmission and distribution businesses are licensed and regulated by the Ontario Energy Board (OEB) under the authority of the *Ontario Energy Board Act, 1998*. The OEB sets transmission and distribution rates and issues licences to Hydro One for both systems.

Hydro One is bound by the terms of its transmission and distribution licences, as well as the requirements of the Transmission System Code and Distribution System Code, both issued by the OEB. The codes provide the minimum conditions a transmitter or distributor must meet in carrying out its obligation to operate and maintain each system.

Hydro One's earnings are principally generated from its regulated transmission and distribution businesses. For the year ending December 31, 2014, Hydro One's total revenues were $6.548 billion, and its operating and other costs were $5.801 billion, resulting in a net income of $747 million. Hydro One's transmission, distribution and telecommunication net fixed assets were valued at about $16.2 billion. At the end of 2014, Hydro One had 5,500 permanent staff and had employed 2,100 temporary workers during the year. The temporary workers are mainly seasonal, working from April to October on construction projects and to supplement Hydro One lines and forestry groups.

1.2 Transmission System

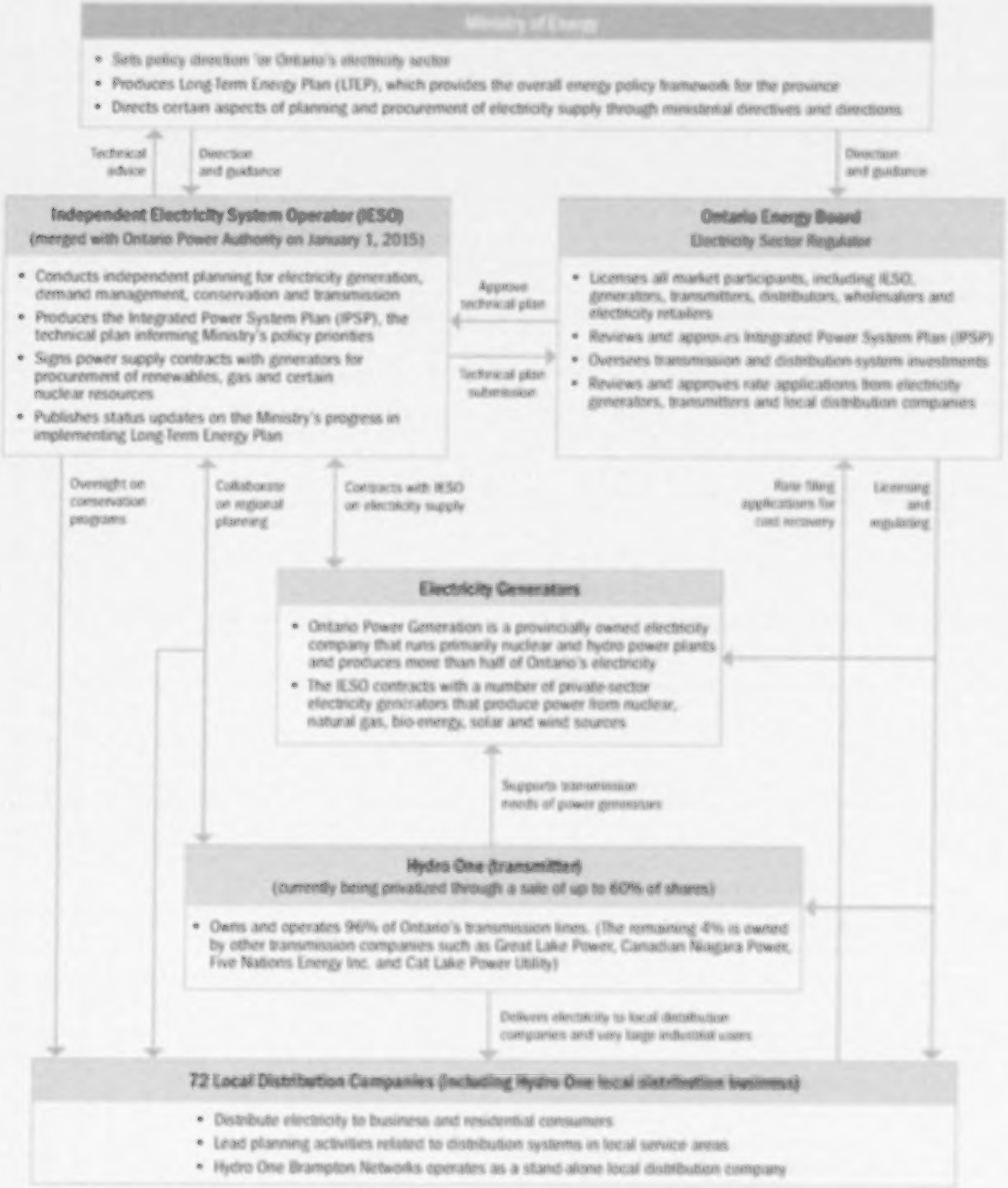
Hydro One's transmission system had net tangible capital assets (for example, lines, towers and transformer stations) valued at $9.3 billion as of December 31, 2014. The transmission system operates over long distances and links electricity generating facilities to LDCs and end-user transmission customers, such as mines, automobile manufacturing facilities and petro-chemical plants via transmission towers and lines connected to transformer stations. The transmission system is linked to five adjoining jurisdictions: Quebec, Manitoba, New York, Michigan and Minnesota. These interconnections are designed to facilitate the transfer of electricity between Ontario and other jurisdictions.

High-voltage transmission towers and lines operate at 500,000 volts, 230,000 volts and 115,000 volts. Almost all lines are overhead, as opposed to underground. Key components of high-voltage transmission lines include the lines, overhead conductors, steel support structures (towers) and grounding systems. Hydro One owns and operates 299 transformer stations that contain 722 power transformers, 4,604 power circuit breakers and 14,000 switches, along with protection and control equipment. There is also physical infrastructure, such as buildings, roads and security fences within a station's boundaries.

Unplanned power outages on the transmission system are primarily caused by weather, particularly lightning strikes, and by equipment failures. Approximately 70% of the delivery points (which receive over 85% of all electricity) on Hydro One's

Figure 1: Roles and Responsibilities of Key Entities Involved in the Electricity System in Ontario

Prepared by the Office of the Auditor General of Ontario



Ministry of Energy
- Sets policy direction for Ontario's electricity sector
- Produces Long-Term Energy Plan (LTEP), which provides the overall energy policy framework for the province
- Directs certain aspects of planning and procurement of electricity supply through ministerial directives and directions

Independent Electricity System Operator (IESO)
(merged with Ontario Power Authority on January 1, 2015)
- Conducts independent planning for electricity generation, demand management, conservation and transmission
- Produces the Integrated Power System Plan (IPSP), the technical plan informing Ministry's policy priorities
- Signs power supply contracts with generators for procurement of renewables, gas and certain nuclear resources
- Publishes status updates on the Ministry's progress in implementing Long-Term Energy Plan

Ontario Energy Board
Electricity Sector Regulator
- Licenses all market participants, including IESO, generators, transmitters, distributors, wholesalers and electricity retailers
- Reviews and approves Integrated Power System Plan (IPSP)
- Oversees transmission and distribution-system investments
- Reviews and approves rate applications from electricity generators, transmitters and local distribution companies

Electricity Generators
- Ontario Power Generation is a provincially owned electricity company that runs primarily nuclear and hydro power plants and produces more than half of Ontario's electricity
- The IESO contracts with a number of private-sector electricity generators that produce power from nuclear, natural gas, bio-energy, solar and wind sources

Hydro One (transmitter)
(currently being privatized through a sale of up to 60% of shares)
- Owns and operates 96% of Ontario's transmission lines. (The remaining 4% is owned by other transmission companies such as Great Lake Power, Canadian Niagara Power, Five Nations Energy Inc. and Cat Lake Power Utility)

72 Local Distribution Companies (including Hydro One local distribution business)
- Distribute electricity to business and residential consumers
- Lead planning activities related to distribution systems in local service areas
- Hydro One Brampton Networks operates as a stand-alone local distribution company

Technical advice
Direction and guidance
Direction and guidance
Approve technical plan
Technical plan submission
Oversight on conservation programs
Collaborate on regional planning
Contracts with IESO on electricity supply
Rate filing applications for cost recovery
Licensing and regulating
Supports transmission needs of power generators
Delivers electricity to local distribution companies and very large industrial users

transmission system are multi-circuit delivery points, meaning they have more than one line available to provide power to customers along that line. The remainder of the transmission system features single-circuit delivery points. Where there are multiple transmission towers and lines connected to a customer, a power outage on one line will not disrupt the power supply to a customer because the other operational line still provides electricity.

(Please see the **Appendix** at the end of this report for a glossary of terms we have used.)

Hydro One must adhere to reliability standards established by the North American Electricity Reliability Corporation (NERC). NERC's mission is to ensure the overall reliability of the bulk electricity system in North America. As the North American transmission system is interconnected, its utilities share a common set of standards that govern the reliability of their operations. Working with the continent's approximately 1,400 bulk electricity transmitters, including Hydro One, NERC establishes and monitors these standards.

The transmission system is monitored, controlled and managed centrally by the Ontario Grid Control Centre (Control Centre) in Barrie. The Control Centre monitors the system around the clock electronically, responds to alarms caused by equipment, and can restore, divert and interrupt power transmission remotely. The Control Centre also authorizes all planned outages (such as when maintenance needs to be performed on transmission system equipment), and it dispatches repair crews to deal with unplanned outages.

Total transmission revenues for Hydro One in 2014 were $1.6 billion. Transmission revenue is based on the transmission tariffs set by the OEB, for which Hydro One makes rate applications every two years. The tariff is designed to recover from large industrial customers and LDCs enough revenue to support Hydro One's costs to operate and maintain the transmission system.

1.3 Distribution System

Hydro One's distribution system spans 75% of Ontario geographically and serves 28% of the province's customers. It serves approximately 1.4 million retail customers, 44 large industrial users and 24 smaller LDCs. Hydro One is the largest LDC in Ontario by both number of customers served and geographic area covered.

The distribution system's net tangible capital assets are valued at $5.9 billion. The system is composed of 123,000 kilometres of distribution lines that operate below 50,000 volts, 1.6 million wooden poles, 500,000 pole-top transformers and approximately 1,200 distribution stations. Distribution stations typically include equipment such as transformers, switches and protection and control equipment, and may include buildings, roads and security fences. From 2012 to 2014, Hydro One installed at a cost of $660 million approximately 1.2 million smart meters, which allows it to remotely receive individual customers' usage data over its telecommunications system.

The Control Centre is also responsible for overseeing the distribution system. However, the system is generally not equipped to monitor service electronically for outages. When a power outage occurs, the Control Centre receives service disruption calls from its customers, and it dispatches local work crews throughout the province to repair service. Unplanned power outages on the distribution system are often due to fallen trees and branches (31%), equipment failure (25%)and miscellaneous incidents such as accidents involving motor vehicles or wildlife (27%). On the other hand, outages on the transmission system, which feeds electricity to the distribution system, cause less than 1% of outages on the distribution system. In addition, planned outages for maintenance work account for 17% of outages.

Total revenue for the distribution business was approximately $4.9 billion in 2014. Similar to the transmission system, distribution revenue is based on distribution tariffs set by the OEB, which are based on separate rate applications that Hydro One submits, typically covering periods of one to three years.

1.4 Telecommunications System

Hydro One's high-speed telecommunications system throughout its transmission and distribution networks had net tangible capital assets of $541 million. The system is used to provide telecommunications for the monitoring, protection and control equipment of Hydro One's transmission system, as well as for corporate data and voice networks and smart meter operations for its distribution system. The system allows the Control Centre to receive real-time data on the performance of the transmission system and operate transmission protection equipment remotely. Use of the telecommunications system is also sold to telecommunications carriers and commercial customers, which in 2014 generated revenues of $57 million.

1.5 Privatization of Hydro One Inc. and Sale of Hydro One Brampton Networks Inc.

The government passed the *Building Ontario Up Act* in June 2015 to permit the sale of up to 60% of the province's common shares in Hydro One. The government announced plans for the fiscal year ending March 31, 2016, to release an initial public offering of approximately 15% of the common shares in Hydro One. The legislation requires the province to retain at least 40% the common shares in Hydro One, and no other single shareholder would be allowed to hold more than 10% of the total equity. In April 2015, the Premier's Advisory Council on Government Assets estimated Hydro One's valuation at $13.5 to $15 billion; using this estimate, selling 60% of Hydro One could bring up to $9 billion to the province, the sole shareholder.

Effective December 4, 2015, the *Building Ontario Up Act* also removed the ability of the Office of the Auditor General to conduct and report on value for money audits on the operations of Hydro One Inc. As a result, this audit of Hydro One's management of electricity transmission and distribution assets, which commenced prior to the tabling of the *Building Ontario Up Act*, will be the last value for money audit released by the Office.

The government is also proceeding with the sale of Hydro One Brampton Networks, expected to bring the province about $607 million, net of any price adjustments. In April 2015, the government announced that it had agreed to an unsolicited offer by three other LDCs, Enersource Corporation, Powerstream Holdings Inc. and Horizon Holdings Inc., to form a merger with Hydro One Brampton Networks.

On August 31, 2015, Hydro One declared a dividend transferring all its shares in Hydro One Brampton Networks to the province. The sale was still in progress as of September 2015 and subject to approval of the local municipalities that own the other LDCs and the Ontario Energy Board.

2.0 Audit Objective and Scope

Our audit objective was to assess whether Hydro One had adequate systems and procedures in place to manage and maintain its transmission and distribution assets efficiently and cost-effectively in accordance with relevant Hydro One policies and regulatory requirements, and to ensure the system was reliable for its customers.

Senior Hydro One management reviewed and agreed to our audit objective and criteria.

Our audit work included interviews with Hydro One management and staff, as well as review and analysis of relevant files, asset databases and other IT systems, policies and procedures, and Hydro One's transmission and distribution regulatory filings to the Ontario Energy Board.

Our work was primarily conducted at Hydro One's head office in Toronto. However, we also visited several transmission and distribution stations, the Ontario Grid Control Centre in Barrie and the Central Maintenance Shop in Pickering. During our visits we interviewed operations staff and we also held discussions with several key staff responsible for vegetation management throughout the province. We also met with representatives from the Association of Major Power Consumers in Ontario, the Canadian Electricity Association, and the Ontario Society of Professional Engineers. We reviewed past Hydro One Internal Audit reports, which also contained findings consistent with our own report.

The scope of our work did not include Hydro One Brampton Networks, which is managed and operated as a standalone LDC and is separate from Hydro One Networks, its distribution system. This audit also did not cover the government's recent decisions to privatize Hydro One Inc. and sell Hydro One Brampton Networks; both of these transactions had not been fully executed at the time our field work was completed in July 2015. We also did not cover Hydro One Remote Communities because its communities are not connected to Ontario's electricity grid.

Our audit fieldwork was conducted from January to July 2015, and we primarily focused on Hydro One activities over the three calendar years from 2012 to 2014.

3.0 Summary

Hydro One's mandate is to be a safe, reliable and cost effective transmitter and distributor of electricity. Hydro One's customers instead have a power system for which reliability is worsening while costs are increasing. Customers are experiencing more frequent power outages, largely due to an asset management program that is not effective or timely in maintaining assets or replacing aging equipment, and an untimely vegetation management program that has not been effectively reducing the number of outages caused by trees.

Some of the more significant areas we noted for improvement in transmission reliability included:

- **Transmission system reliability has deteriorated:** Hydro One's transmission system reliability has worsened for the five years from 2010 to 2014. Outages are lasting 30% longer and occurring 28% more frequently. In the same period, Hydro One's spending to operate the transmission system and replace assets that are old or in poor condition increased by 33%. While Hydro One's overall transmission system reliability compares favourably to other Canadian electricity transmitters, it has worsened in comparison to U.S. transmitters.
- **Equipment outages increasing, backlog of preventive maintenance growing:** Hydro One has a growing backlog of preventive maintenance orders to be performed on its transmission system equipment, and this lack of maintenance led to equipment failures. The backlog of preventive maintenance orders for transmission station equipment increased by 47%, from 5,941 orders as of 2012 to 8,730 orders as of 2014. At the same time, the number of equipment outages on the transmission system increased by 7%, from 2,010 in 2012 to 2,147 in 2014. The cost to clear the backlog of preventive maintenance work orders has grown 36%, from $6.1 million as of December 31, 2012, to $8.3 million as of December 31, 2014.
- **Hydro One not replacing very high-risk assets, contrary to its rate applications:** We found Hydro One was not replacing assets it determined were in very poor condition and at very high risk of failing, and it used these assets in successive rate applications to the Ontario Energy Board to justify and receive rate increases. Power transformers that are identified as being in very poor condition should be replaced at the earliest time possible; however, Hydro One replaced only four of the 18 power transformers it deemed to be in very poor condition in its 2015-2016

application used to obtain rate increases, and instead replaced other old transformers rated in better condition. These transformers are at a higher risk to fail, and we found two power transformers rated as being in very poor condition that failed and resulted in outages to customers lasting 200 minutes in 2013 and 220 minutes in 2015. Hydro One's transmission system rate application for the two-year period 2015–2016 listed 34 power transformers as rated "very high risk" for failure; however, the application did not indicate that Hydro One was planning to replace only eight of these over this period. In choosing not to use the additional funds from rate increases approved by the OEB to replace 26 transformers in very poor condition, Hydro One will have to seek $100 million again in the future to carry out the overdue replacement.

- **Significant transmission assets that are beyond their expected service life still in use:** Hydro One's risk of power failures can increase if it does not have an effective program for replacing transmission assets that have exceeded their planned useful service life. The number of key transmission assets, such as transformers, circuit breakers, and wood poles, in service beyond their normal replacement date ranged from 8% to 26% for all types of assets in service. Replacing these assets will eventually cost Hydro One an estimated $4.472 billion, or over 600% more than its $621 million capital sustainment expenditure for 2016.
- **Funding requests made to Ontario Energy Board not supported by reliable data:** The asset condition ratings provided by Hydro One in its 2013–2014 and 2015–2016 rate applications to the OEB were inaccurate and contained errors because of unreliable internal systems for reporting on the condition of assets. We found that 27 of the 41 transformers replaced in 2013 to 2016 had been wrongly identified in the rate applications as being in good or very good condition, yet Hydro One had plans at the time to replace several of these transformers due to their old age or poor condition. Similarly, we noted that 19 of the 30 transformers inaccurately reported in the 2015–2016 rate application as having a low or very low risk of failure were already scheduled to be replaced during this period.
- **Asset Analytics System not accurately considering all factors related to asset replacement decisions:** Key information is often not included, or incorrectly weighted, in the *Asset Analytics* system, Hydro One's new asset investment planning IT system implemented in 2015 to replace older systems. As a result, assets that need replacing are not being accurately identified. We found that the *Asset Analytics* database does not incorporate qualitative factors, such as technological or manufacturer obsolescence information, known asset defects and health and safety concerns. For example, oil leaks are one of the leading reasons for replacing a transformer. However, this information has only a minor impact in *Asset Analytics* for determining the risk of the asset failing and the need to replace it. In its reporting to OEB, Hydro One assigns oil leaks an impact on a transformer's condition rating of only 15% in determining whether an asset is classified as being in very good to very poor condition overall.
- **Limited security for electronic devices increases risk of power outages:** Hydro One's approach to ensuring proper security over transmission system electronic devices did not ensure a robust, high level of security for all of its electronic devices. Only certain devices in its transmission system receive higher levels of security in order for it to meet North American Electricity Reliability Corporation (NERC) standards for the bulk electricity system, which includes those major transmission lines and transformer stations that are linked to other states and provinces.

Hydro One is required to apply NERC standards related to electronic devices to only 18% of its transmission stations, and only to critical devices, which make up less than 17% of the electronic devices at these stations. All other electronic devices that are used for transmission within Ontario and don't impact the bulk electricity system are covered by Hydro One's weaker security policy, which was not applied consistently to devices. This increases the risk of service disruptions for Ontario customers due to sabotage, vandalism, software viruses and unauthorized or unintentional changes to device software or controls.

Some of the more significant areas we noted for improvement in distribution reliability are as follows:

- **Distribution reliability poor and costs have increased**: Hydro One's distribution system has consistently been one of the least reliable among large Canadian electricity distributors between 2010 and 2014. The average duration of outages reported by members of the Canadian Electricity Association (CEA) between 2010 and 2014 was about 59% less than Hydro One over the same period, while average frequency of outages among CEA members was 30% lower. In a scorecard published by the Ontario Energy Board in 2014, Hydro One was ranked worst and second worst of all distributors in Ontario for duration and frequency of outages in 2013. Over the same period, spending increased by 18% to operate and maintain the distribution system or replace assets that were old or in poor condition.
- **Hydro One not clearing vegetation (forestry) around distribution system in timely way, thus increasing the risk of outages and system reliability**: The top reason for distribution system outages from 2010 to 2014 was broken lines caused by fallen trees or tree limbs. A key factor in this was that Hydro One operates on a 9.5 year vegetation management cycle, while the average such cycle for 14 of Hydro One's peer utilities was 3.8 years. Hydro One's own analysis indicates that by not operating on a vegetation management cycle similar to its peers, the vegetation management work it did in 2014 cost $84 million more than it would have under a four year vegetation management cycle and customers would have experienced fewer outages caused by trees, and, therefore, had 36 minutes less in total outage time for the year.
- **Improper prioritization of vegetation-management work resulted in more tree-caused outages**: The system used by Hydro One to designate distribution lines for vegetation management does not put priority on those areas where tree-related outages have caused disruptions. We found examples where vegetation management was performed on distribution lines that had had few tree-caused outages, at the expense of distribution lines that had had significantly more tree-caused outages. This resulted in the number of tree-caused outages increasing by 5% from 2010 to 2014 (from 7,747 in 2010 to 8,129 in 2014), while vegetation management spending increased by 14% over the same period ($161 million in 2010 to $183 million in 2014).
- **Asset Analytics ratings information for distribution assets is incomplete and unreliable**: As of July 2015, Hydro One's Asset Analytics system, a key tool in making replacement decisions, had incomplete and unreliable data for distribution assets. We found that three years after the implementation of the Asset Analytics database, it contained incomplete or erroneous data for distribution system assets. For example:
  - there was limited data available to evaluate all 152 distribution station breakers; and
  - 14 distribution station power transformers that are under 10 years old were mistakenly

assigned age scores of 100, which would be past the 40-year expected service life of such transformers.

- **Significant distribution assets that are beyond their expected service life still in use:** Hydro One increases the risk of power failures by not replacing distribution system assets that have exceeded their planned useful service life. Hydro One's planned service life for wood poles is 62 years, but 202,000 poles, or 13% of the total, were older than that. Replacing these poles will eventually cost $1.76 billion. Only about 12,000 poles are replaced each year, much less than the number needed to address the risk of poles falling and much less than the number that are in service beyond their expected service life. In addition, it will eventually cost another $158 million to replace the 243 station transformers beyond their 50-year expected service life.
- **Smart meters not used to proactively identify power outages:** Hydro One installed 1.2 million smart meters on its distribution system at a cost of $660 million, yet it has not implemented the related software and capabilities to improve its response times to power outages. Currently, smart meters are used by Hydro One predominantly for billing purposes and not to remotely identify the location of power outages in the distribution system before a customer calls to report an outage. Such information from smart meters would make dispatching of work crews timelier and more efficient, leading to improved customer service and cost savings.

Some of the other significant areas we noted for improvement pertaining to both the transmission and distribution systems are as follows:

- **Excessive number of spare transformers in storage:** Hydro One did not have a cost-effective strategy for ensuring it had an appropriate number of spare transformers on hand, resulting in it having too many spare transformers in storage. While typically only about 10 transformers fail annually, Hydro One had 200 spare transformers—60 transmission transformers and 140 distribution transformers—valued at around $80 million in storage at the Central Maintenance Shop in Pickering. Thirty-five of these transformers had been in storage for at least 10 years. Hydro One itself estimates that by standardizing transformers and improving forecasting, it could reduce the number of spare transformers by up to 35% and save up to $20 million over the next 10 years. We estimate this savings could be much higher with better management, ranging from $50-$70 million.
- **Power quality issues are not corrected proactively:** Major transmission and distribution customers are concerned about the quality of their power, such as having stable voltage levels, but Hydro One addresses power quality issues only if customers complain. Hydro One has received 150 power quality complaints from 90 large industrial transmission customers alone since 2009. To measure fluctuations and assess the frequency and location of power quality events, Hydro One has installed 138 power quality meters across its transmission and distribution systems since 2010. However, Hydro One is not monitoring and analyzing the data from these meters to improve system reliability for its customers unless a customer first calls to complain.
- **Weak management oversight processes over capital project costs:** While Hydro One spent over $1 billion annually from 2012 to 2014 on capital projects to sustain its transmission and distribution systems, we noted it had weak oversight processes to minimize projects costs. For instance, up to 55% of projects costs are internal charges, since Hydro One primarily uses its own employees to carry out construction projects; however, it does not regularly analyze or benchmark its internal costs to industry standards to assess whether they are reasonable.

We also found that all capital project estimates used for approving projects included on average a 20% contingency charge allowance and an 8% escalation charge allowance, which gave Hydro One staff little incentive to complete a project at its original project cost estimate, or develop more accurate cost estimates for projects. We asked Hydro One management to prepare a report that compared the original project approval, including allowances, with the actual project costs for all projects completed for the years 2013 to 2015. The report we received in June 2015 was incomplete, and only included 61 of the 105 projects approved for over $1 million. Using the incomplete report, we estimate Hydro One spent on average 22% more than the original project cost estimates and used the allowances to complete these projects. This amounted to a total of $150 million more spent on the projects than the original project cost estimates.

Given that the Office of the Auditor General will no longer have jurisdiction over Hydro One as of December 4, 2015, we have made the following recommendation, requesting that the Ontario Energy Board take the observations we have made in this report into consideration during its regulatory processes:

- That the Ontario Energy Board, on behalf of electricity ratepayers in Ontario, as part of its regulatory oversight of Hydro One, review this report, the recommendations, and future actions taken by Hydro One to improve the reliability and cost-effectiveness of its transmission and distribution systems.

This report contains 17 recommendations to Hydro One, consisting of 37 actions, to address the findings noted during this audit.

OVERALL ONTARIO ENERGY BOARD RESPONSE

As part of its regulatory regime, the Ontario Energy Board (OEB) uses processes to hold all utilities, including Hydro One, to a high standard of efficiency and effectiveness. The recommendations made by the Auditor General in this report are useful in further supporting our efforts and in holding Hydro One accountable for prudently managing its resources and improving its service.

The OEB is committed to using all key information available for its deliberations and decision-making processes, and will, as appropriate, consider the areas of improvement identified by the Auditor General in future as it exercises its regulatory functions to ensure that Hydro One undertakes appropriate planning and investing, and optimal maintenance of its systems, and that it benchmarks itself against external comparators.

The report highlights a number of areas where Hydro One can improve the quality of its planning and the cost-effectiveness of its execution of those plans. The OEB likewise places a high priority on delivering value to electricity customers for the rates they pay. In 2012, the OEB developed the renewed regulatory framework for electricity (RRFE) distributors, which places a focus on rigorous asset management and capital planning in support of cost-efficient operations. The framework prescribes use of industry benchmarking to ensure improvement in cost performance and contains high expectations of continuous improvement to increase the productivity of operations. Utilities are expected to engage with their customers to understand their needs and preferences and to focus on the achievement of outcomes that take their priorities into account.

In its evaluation of Hydro One's most recent rate-rebasing application (EB-2013-0416), the first such application that it filed under the OEB's renewed framework, the OEB identified certain deficits: among other things, it concluded that Hydro One Networks Inc.'s distribution investment planning does not yet appear to be properly aligned with the actual condition of its assets; that its vegetation management does not show sufficient efficiencies or productivity improvements; and that its productivity commitments do not show the company to have a strong enough orientation toward continuous improvement.

Consequently, the OEB has already secured Hydro One's commitment to measure and report on many of the areas that the Auditor General's report has highlighted in its audit recommendations. In fact, in light of its concerns as to whether Hydro One's distribution investment priorities had been optimized, in Hydro One's last rate application, the OEB approved only three years of a proposed capital spending plan rather than the five years Hydro One requested, and indicated that further approvals will be contingent on the quality of Hydro One's supporting evidence.

The OEB decision in this application took further steps to ensure that Hydro One addresses shortcomings in its planning and benchmarking, many of which intersect directly with the recommendations of the Auditor General. Specifically, the OEB has ordered or otherwise secured Hydro One's commitment, among other things, to:

- conduct external benchmarking on the unit costs of its distribution pole replacement and station refurbishment plans;
- consider external review of its distribution system planning;
- report on achieved in-service investments relative to plan;
- undertake a total factor productivity study of Hydro One's own productivity, including data from 2002 and following years at a minimum; and
- explore best practices in vegetation management, considering changes in labour mix and innovation opportunities, as well as conduct a trend analysis of the vegetation management program showing year-over-year variations in unit costs.

Similar focus has also fallen on Hydro One's transmission business. As part of its most recent transmission rate application (EB-2014-0140), Hydro One has committed to benchmark its transmission cost performance relative to similar companies. The OEB is also working toward the implementation of the RRFE framework for transmission in Ontario as part of its continued commitment to ensure that the owners and operators of electricity networks in Ontario provide reliable, cost-effective service at rates that represent good value to customers.

OVERALL HYDRO ONE RESPONSE

Managing Hydro One's massive and complex transmission and distribution system requires considerable engineering expertise and dynamic asset management strategies that result in timely and disciplined investments to maintain or improve reliability and optimize equipment performance and cost. The Company recognizes there is always room to do better in this regard, so it makes continuous improvement a primary consideration in all of its asset plans and strategies.

Hydro One has strengthened the oversight of the Company and its operations. Internal Audit, reporting directly to the Audit Committee of the independent Board of Directors, will review this report and will oversee the Company's implementation of the recommendations where Hydro One believes they enhance reliability while balancing service and cost.

Hydro One's transmission and distribution businesses are regulated by the Ontario Energy Board (OEB), and the Company must comply with the conditions of service within the transmission and distribution system codes as part of its license. Hydro One places a high priority on its obligation to provide the OEB with complete, accurate and supportable evidence in its rate applications. Additionally, the Company acts on the recommendations and direction of the OEB as outlined in successive rate decisions.

Going forward, Hydro One is focused on delivering improved business performance and superior customer service as the Company prudently invests in Ontario's electricity transmission and distribution infrastructure. The Company will continue to do so while balancing service with cost.

Hydro One appreciates the work of the Auditor General and her staff, and the opportunity to respond to the findings within the audit. The recommendations provided as a result of this audit are being carefully considered as the Company moves forward.

4.0 Detailed Audit Observations

4.1 Transmission System

4.1.1 System Reliability Worsened from 2010 to 2014

Hydro One's transmission system customers expect their system to be reliable. However, we found that the system became less reliable from 2010 to 2014, with longer and more frequent outages. Hydro One's overall transmission system reliability compares favourably to other Canadian electricity transmitters; however, its reliability has worsened compared to U.S. transmitters.

Transmission system reliability is measured by two main metrics: the duration of outages and the frequency of outages. The System Average Interruption Duration Index (SAIDI) (average duration of outages) measures the average number of minutes per year each delivery point on the transmission system has experienced an outage, while the System Average Interruption Frequency Index (SAIFI) (average frequency of outages) measures the average number of outages per delivery point per year.

Hydro One measures system reliability separately for areas that are serviced by single-circuit delivery points, where a customer has only one line delivering electricity, and multi-circuit delivery points, where a customer has multiple towers and lines delivering electricity. Transmission outages are less likely to occur in areas that have multiple towers and lines since electricity can be supplied uninterrupted using an alternative line should one become out of service. Hydro One publicly reports on the performance of its transmission system based only on its areas serviced by multi-circuit delivery points, which cover over 85% of the electricity it delivers.

The difference in reliability between areas serviced by single or multiple lines was significant. As shown in **Figure 2**, single-circuit areas averaged 217.5 minutes in outages per year from 2010 to 2014, and the number of minutes varied significantly between years. In comparison, multi-circuit areas averaged 9.9 minutes in outages per year. Similarly, the number of outages averaged 3.22 per year per delivery point for the single-circuit transmission system compared to only 0.31 per year for the multi-circuit transmission system.

We found 47% of transmission outages from 2010 to 2014 occurred in Northern Ontario, even though this is where fewer than 20% of Hydro One's delivery points are located. In Northern Ontario, 86% of the delivery points are single circuit supplied. As it is costly to build additional towers and lines, Hydro One does not attempt to convert rural single-circuit delivery points that serve fewer, or smaller, customers to multi-circuit delivery points because it does not consider it cost effective to do so, even if it would improve system reliability for these customers.

For multi-circuit areas of the transmission system, Hydro One's reliability performance has deteriorated significantly since 2010. **Figure 2** shows that average duration of outages and average frequency of outages worsened (increased) by

Figure 2: Hydro One Transmission System Outages, 2010–2014

Source of data: Hydro One

	2010	2011[1]	2012	2013	2014[2]	Five-year Average	% Change Between 2010 and 2014
Multi-circuit Delivery Points							
SAIDI (minutes per delivery point)	9.1	8.9	6.8	12.9	11.8	9.9	30
SAIFI (outages per delivery point)	0.29	0.33	0.28	0.30	0.36	0.31	24
Unplanned outages	176	203	175	189	228	194	30
Single-circuit Delivery Points							
SAIDI (minutes per delivery point)	165.2	410.0	224.9	192.4	95.2	217.5	-42
SAIFI (outages per delivery point)	2.99	3.25	3.59	3.55	2.73	3.22	-9
Unplanned outages	820	851	947	945	737	860	-10

1. Hydro One indicated that 2011 was an extraordinary year for power outages for areas serviced by single-circuit delivery points because of forest fires in northern Ontario. Forest-fire-triggered outages accounted for 234 minutes out of the total 410 minutes incurred during that year.
2. Hydro One indicated that 2014 performance improved significantly for power outages for areas serviced by single-circuit delivery points primarily because of relatively less adverse weather during the year.

approximately 30% and 24% respectively from 2010 to 2014, and unplanned outages increased by 30%. Hydro One's records indicate this deterioration in reliability is primarily due to an increase in the number of unplanned outages, such as those caused by equipment failure or weather, that occurred at the same time as planned outages for such work as refurbishing or replacing aging transmission system assets, which temporarily rendered the alternate lines inoperative. If the alternate lines had been in operation at the time, those customers would likely not have experienced outages. These types of outages increased by 27% from 2010 to 2014 (from 74 outages in 2010 to 94 outages in 2014).

Despite the fact that Hydro One's recent transmission system reliability has worsened, it still compares favourably to other Canadian transmitters. The Canadian Electricity Association (CEA) collects information on the system reliability of Canadian electrical transmitters. Annually from 2010 to 2014, Hydro One's average duration and frequency of outages were generally better than the CEA average each year.

4.1.2 Transmission System Reliability is Poor Compared to the U.S.

As part of the bulk electricity system in North America, Hydro One's transmission system is integrated with transmitters in the United States. Hydro One participates in an annual transmission system reliability benchmarking study with transmitters in the United States, and the results indicate the reliability of Hydro One's system was generally worse than other transmitters. Other provinces' transmitters that are also on the bulk electricity system do not participate in these studies.

The study compares various metrics, including the average frequency and duration of outages, of a transmitter's entire system. In the 2011 report, based on outage data from 2006 to 2010, Hydro One's average duration and frequency of outages ranked only 21st and 22nd respectively out of the 25 participants. Similarly, in the 2015 study, based on outage data from 2010 to 2014, Hydro One was ranked only 10th and 13th for the average duration and frequency of outages out of 14 participants, and both averages were higher (worse) than the scores from the 2011 report.

The study also compares the reliability of only the portion of each transmitter's system that is part of the bulk electricity system. In the 2011 report, Hydro One's average duration of outages for its bulk electricity system was ranked 21st out of 24, and in the 2015 report, it ranked only 12th out of 14. In the 2011 report, Hydro One's average frequency of outages for its bulk electricity system was ranked only 21st out of 24, and in the 2015 report, it ranked only 13th out of 14.

4.1.3 Transmission System Availability Has Worsened from 2006 to 2014 Compared to Other Provincial and U.S. Transmitters

Comparison to Other Provincial Utilities

The Canadian Electricity Association (CEA) collects data from and reports to its provincial utility members on an availability metric for their transmission systems. The metric identifies how often electricity was unavailable, in system minutes, on the transmission system.

The CEA's data shows that Hydro One's availability is generally better than the CEA average of other provincial transmitters, with Hydro One unavailability at 16.4 system minutes compared to the CEA's average of 19.5 minutes using the average unavailability during the period 2010-2014.

Nevertheless, Hydro One's availability has worsened over time. While the CEA's 2011 report found that from 2006 to 2010, Hydro One's unavailability was 14.6 system minutes on average per year, this increased to 16.4 system minutes on average per year in the 2015 report, which reports on data from 2010 to 2014. While Hydro One's unavailability increased by 12% between the 2011 and 2015 reports, the CEA average unavailability decreased slightly during the same period, from 20.2 system minutes to 19.5 system minutes.

Transmission system availability is impacted by both planned and unplanned outages. It appears that Hydro One may have had more scheduled outages due to increased spending for maintenance, repairs and improvements, and therefore availability was negatively impacted when primary or back-up lines were shut down.

Comparison to U.S. Transmitters

The transmission system reliability benchmarking study Hydro One participates in with transmitters in the United States indicates that the unavailability of Hydro One's system is higher than other participating transmitters.

The study compares an overall Transmission Availability Composite Score (TACS), which measures the availability of electricity (how often transmission customers had electricity available for their use compared to how often they desired electricity). In the 2011 report, based on outage data from 2006 to 2010, Hydro One's TACS ranked it 23rd out of 25 participants. Similarly, in the 2015 study, based on outage data from 2010 to 2014 from 14 participants, Hydro One scored worse than it had in 2011 and placed last, including being behind the two transmitters that had a worse TACS than Hydro One in 2011.

On the other hand, Hydro One's availability for only the portion of each transmitter's system that is part of the bulk electricity system has improved compared to others U.S. transmitters surveyed. While Hydro One's system availability decreased (worsened) between the 2011 and 2015 reports, Hydro One's overall ranking improved from 13th of 24 in the 2011 report to fourth of 14 in the 2015.

We asked Hydro One management why U.S. transmitters generally have more reliable systems, and were advised that they typically have shorter distances to deliver electricity than Hydro One, and that Ontario's geography is larger and more challenging to service. However, no detailed analysis was available that studied these reasons or how to overcome the differences.

RECOMMENDATION 1

To ensure the reliable operation of the transmission system and to reduce the number of power outages experienced by customers, Hydro One should:

- set multi-year targets and timetables for reducing the frequency and duration of power outages that would lead to it having a system reliability and availability that compares favourably to other utilities in North America, establish an action plan and strategy for achieving these targets, and regularly report publicly on its efforts to achieve these targets;

- set targets and timetables, and cost-effective action plans, to improve the poor performance of its single-circuit transmission system; and
- more thoroughly analyze outage data on both its single- and multi-circuit systems to correct the main issues that are contributing to the system's declining reliability.

HYDRO ONE RESPONSE

Hydro One agrees with the Auditor General's recommendation and has started setting multi-year reliability targets in its 2015 Corporate Scorecard. The 2015 Corporate Scorecard included both 2015 and 2019 targets to signal the Company's drive to continuous improvement.

Hydro One will continue to make reliability a key priority by reducing the number of planned outages. It will do so by combining planned maintenance activities undertaken during the outage. This will reduce the risk of customer interruptions.

Hydro One's single circuit delivery points, by design, are not as reliable as delivery points served by multiple circuits. Single-circuit delivery point reliability has increased over the 2010–14 time horizon, as shown by the improved SAIDI and SAIFI results and lower unplanned outages.

Hydro One does respond to customer requests to improve reliability, providing the customer is prepared to pay the costs of the necessary investments in accordance with the Ontario Energy Board's (OEB's) Transmission System Code (TSC). The TSC requires affected customers to consent to pay their respective shares of the cost of the additional circuit. Customers have generally not provided such consent in Ontario, where such costs tend to be high due to low customer density and long lines.

Hydro One will continue to analyze outage data to identify issues relating to reliability. Hydro One carries out investments to improve customer reliability in accordance with the Customer Delivery Point Performance Standard issued by the OEB. This standard sets out thresholds for inadequate performance and appropriate funding levels based on minimum improvement levels and size of the customer load. The investments balance costs and benefits, and consider the degree of the improvement and the size of the load that is impacted.

Hydro One will undertake network expansions to provide redundant supplies and improve reliability to electrical areas that serve multiple customers when electricity demand in the area meets the criteria established by the Independent Electricity System Operator's Ontario Resource Transmission Assessment Criteria standard. The objective of the standard is to balance cost, customer benefit and ratepayer impacts.

4.1.4 Growing Backlog of Preventive Maintenance on Equipment Reduced System Reliability

A lack of preventive maintenance can lead to a shorter expected service life of equipment and premature equipment failure, which is the second-most common cause of outages (16% of all outages from 2010 to 2014). We found that the growth in the backlog of preventive maintenance on transmission system equipment from 2012 to 2014 likely contributed to an increase in the number of equipment outages on the transmission system. The backlog increased by 47%, from 3,211 orders as of 2012 to 4,730 orders as of 2014. During the same period, the total number of equipment outages on the transmission system increased by 7%, from 2,010 instances in 2012 to 2,147 instances in 2014.

Almost half (48%) of the preventive maintenance backlog in 2014 relates to the two most critical assets within a transmission station—transformers and circuit breakers. The backlog of preventive maintenance for these assets increased by 320% and 393%, respectively, from 2012 to 2014. During the same period, the increase in the number of transformer and circuit breaker outages on the transmission system increased by approximately 14% and 36%, respectively. We identified instances where a key piece of equipment for the transmission system failed that had backlogged preventive maintenance work.

Hydro One advised us that the backlog exists because it does not have sufficient staff available to perform all scheduled maintenance. The situation has worsened since 2012 as maintenance staff have been assigned to complete capital projects to repair or refurbish Hydro One's aging transmission system. We estimate from the preventive maintenance work orders in the backlog that the cost to clear the backlog has grown 36%, from $6.1 million as of December 31, 2012, to $8.3 million as of December 31, 2014. We believe that an $8.3-million backlog should have been manageable and eliminated long ago by Hydro One, given their multi-billion dollar annual operating budgets; instead, it is growing and impacting system reliability.

RECOMMENDATION 2

To ensure that Hydro One has an effective preventive maintenance program for all its critical transmission system assets to ensure they operate reliably and their expected service life is not shortened, Hydro One should:

- establish a timetable that eliminates its growing preventive maintenance backlog as soon as possible; and
- improve its oversight of preventive maintenance programs to ensure maintenance is completed as required and on time.

HYDRO ONE RESPONSE

Hydro One agrees that more diligence is required to ensure that the records contained in its management information system are reflective of actual outstanding maintenance. Consistent with industry practice, Hydro One maintains a catalogue of planned maintenance work that may have completion dates that extend well into the future. These maintenance orders are released well in advance of required completion dates to allow Hydro One to bundle work effectively (thus avoiding the need for multiple planned outages). Reducing the number and duration of planned outages reduces the risk of customer interruptions.

All critical preventative maintenance is completed when required. Maintenance activities that need to comply with industry standards are confirmed through Hydro One's Internal Compliance Program.

Hydro One will continue to prioritize work to enhance reliability and optimize work efficiency, while at the same time balancing service and cost.

4.1.5 Hydro One Not Replacing Transmission Assets that Are at Very High Risk of Failure

We found that the assets that Hydro One replaced or planned to replace from 2013 to 2016 were not the ones that it reported to be in very poor condition and at very high risk of failure in its bi-annual transmission rate applications to the Ontario Energy Board (OEB). In its rate application for 2013-2014, Hydro One stated that it had a program to replace power transformers and circuit breakers that had reached the end of their useful service lives, which was determined by evidence including the condition and age of the asset and its operating history. The rate application noted that the condition of an asset is the main indicator of its risk of failing, and that replacing assets that are in poor condition as soon as possible is key to maintaining the reliability of the system.

Based on Hydro One's report of its aging and deteriorating transmission transformers, as presented in its rate applications, the OEB approved increased capital sustainment funding for the period 2013 to 2016. As a result, Hydro One's transmission transformer replacement spending increased to more than $280 million over the two years 2013 and 2014 from $180 million over 2011 and 2012. Hydro One also planned to spend about $225 million on transformer replacements over 2015 and 2016.

In its 2013-2014 transmission rate application filed in May 2012, Hydro One reported that 18 of its 719 power transformers as of December 2011 were rated as being in very poor condition and at a very high risk of failure. Most of these 18 power transformers were at or past their expected service life of 40 to 60 years, with their average age being over 60 years.

However, as **Figure 3** shows, Hydro One replaced only four of the 18 power transformers deemed to be in very poor condition in 2013 and 2014, and replaced 37 other old power transformers, including 14 rated as being in very good condition and 13 in good condition. Of the four power transformers in very poor condition that were replaced, one failed prior to its replacement in 2013, causing a major power outage of 200 minutes on September 12, 2013, in an eastern Ontario town. One of the remaining 14 power transformers rated as being in very poor condition that was not replaced also failed in 2015, causing a major outage of 220 minutes on February 13, 2015, affecting customers in Toronto.

In its 2015-2016 transmission rates application filed in June 2014, indicating it wanted to replace 43 transformers, Hydro One informed the OEB that it now had 34 power transformers deemed as being at very high risk of failure. The application did not state that the 34 transformers included 13 that had been identified in the previous rate application as being in very poor condition, but had not yet been replaced. However, information for 2015-2016 provided to us by Hydro One indicated that of the 43 transformers it indicated it wanted to replace, it planned to replace only eight of the 34 in very poor condition. By not replacing 26 transformers in very poor condition, even though the OEB approved rate increases to fund these replacements, Hydro One will have to seek $148 million again in the future for their eventual overdue replacement.

Similarly, as **Figure 3** shows, Hydro One did not replace circuit breakers during 2013 and 2014 in accordance with the condition ratings it submitted to the OEB. While 153 circuit breakers were replaced at a cost of $123 million, only one of the 16 circuit breakers reported as being in very poor condition was replaced, and 63% of breakers replaced were in fair, good or very good condition. In addition, Hydro One's planned replacement lists for 2015-2016 indicate that the 85 circuit breakers

Figure 3: Condition Ratings and Replacements of Transformers and Circuit Breakers

Source of data: Hydro One

	Condition Rating					
	Very Good	**Good**	**Fair**	**Poor**	**Very Poor**	**Total**
Transformers						
# as of December 2011*	374	203	68	56	18	**719**
# replaced in 2013-2014	14	13	6	4	4	**41**
Circuit Breakers						
# as of December 2011*	908	1,715	975	648	16	**4,262**
# replaced in 2013-2014	12	50	34	56	1	**153**

* This is the number reported in Hydro One's transmission rate application for 2013/14 filed with the Ontario Energy Board in May 2012.

to be replaced will include only 21 that were rated as having a high or very high risk of failure.

We asked Hydro One asset management staff why assets in very poor condition were not replaced while others in reportedly better condition were. We were advised that Hydro One generally does not rely solely on reports from its Asset Analytic system (discussed later in **Section 4.1.6**) to decide which transmission assets to replace. Instead, asset management staff prepare a business case for assets that cost more than $20 million and need replacing, and a shorter project execution summary for all other replacements. These reports consider factors not covered by Asset Analytics, such as health and safety issues, and an onsite inspection of the asset is made. However, we found that Hydro One did not use the results of this more in-depth process for its rate applications to the OEB, instead using the unreliable information from Asset Analytics.

Nevertheless, we confirmed with Hydro One that those assets reported to the OEB as being in very poor condition and very high risk during rate applications between 2013 and 2016 were accurately reported and in need of replacement as soon as possible. This still leaves us questioning decisions made by Hydro One asset management staff on how they prioritize transmission assets for replacement when assets known to be in very poor condition and very high risk are not replaced. We also question why they continue to report inaccurate information to justify rate increases in their applications to the OEB.

Transmission Assets in Service Beyond Their Expected Life Increases Risk of Power Outages

Hydro One increases the risk of power failures because it does not have an effective program for replacing transmission assets that have exceeded their planned useful service life. **Figure 4** shows the percentages of Hydro One's key transmission assets that are in service beyond their expected service life and the estimated replacement cost that Hydro One will incur to replace these assets. The number of key transmission assets in service beyond their normal replacement date ranged from 8% to 26% of all assets in service. Replacing those assets will cost Hydro One an estimated $4.472 billion, or over 600% higher than its $621 million capital sustainment expenditure for 2014.

For transformers and circuit breakers, Hydro One acknowledged in its June 2014 rate application for

Figure 4: Transmission Assets in Use Beyond Their Expected Service Life, as of June 2014

Source of data: Hydro One

Asset	# or Distance Covered as of June 2014	Years of Expected Service Life	% Assets in Use in June 2014 That Were Beyond Their Expected Service Life	Estimated Cost to Replace Assets That Were Beyond Their Expected Service Life ($ million)
Stations				
Transformer	722	40, 50 or 60*	24	988
Circuit breaker	4,604	40 or 55*	8	325
Protection system	12,135	20, 25 or 45*	17	224
Lines				
Overhead conductor and hardware	30,000 km	70	19	1,908
Wood pole structure	42,000	50	26	378
Steel structure	50,000	80 to 100*	21	397
Underground cable	290 km	50	16	252
Total				**4,472**

* There are different types of this asset, each with different years of expected service life.

2015-2016 that its transformer and circuit breaker reliability lagged behind Canadian Electricity Association (CEA) averages for 33 large utilities.

In addition, we noted that the expected service life that Hydro One sets for its transformers exceeds the average expected service life used by other CEA member utilities. Hydro One sets its expected service life at 40 to 60 years depending on the type of transformer, while the CEA average is 40 years.

RECOMMENDATION 3

To reduce the risk of equipment failures that can cause major power outages on the transmission system, Hydro One should:

- ensure that its asset replacement program targets assets that have the highest risk of failure, especially those rated as being in very poor condition;
- reassess its practice of replacing assets that are rated as being in good condition before replacing assets in very poor condition; and
- replace assets that have exceeded their planned useful service life.

HYDRO ONE RESPONSE

Hydro One agrees that an asset in good condition should not be replaced before an asset in poor condition unless justified by one or more additional factors in the asset replacement process (for example, customer requirements, inadequate capacity, known manufacturer defect and so on).

Hydro One's asset replacement program is supported by asset condition information, detailed engineering assessments and a prioritization process to manage risks (safety, reliability) and achieve execution efficiency (outage availability, resources, bundling with other work).

Hydro One considers equipment condition and defects as a leading indicator of major equipment performance.

Other factors that inform the decision to replace an asset include equipment obsolescence, criticality, utilization, maintenance costs, performance and demographics. The Company does not replace assets that, while old, are in good working condition.

RECOMMENDATION 4

Hydro One should ensure that its applications for rate increases to the Ontario Energy Board provide accurate information on its asset replacement activities, including whether it actually replaced assets in poor condition that were cited in previous applications and whether the same assets in poor condition are being resubmitted to obtain further or duplicate rate increases in current applications.

HYDRO ONE RESPONSE

Information about transformer age and condition, filed with the Ontario Energy Board as part of rate filings, is intended to establish overall fleet condition. This information alone is insufficient to establish plans for individual transformer replacements. Rather, it informs the investment plan and helps determine the size of the program.

Hydro One exercises discretion, based upon specific information and circumstances, in selecting, prioritizing and adjusting the timing (including deferral) of capital work. Consequently, a proposed investment can appear in subsequent rate applications.

In future rate submissions, Hydro One will provide evidence of what it accomplished relative to the previously filed / approved rate application.

4.1.6 Information Systems on Asset Condition Not Reliable

The system Hydro One uses to record the condition of transmission assets contained erroneous and incomplete information, and did not adequately support Hydro One staff decisions on when to replace assets. Hydro One also used unreliable information from its systems to report asset condition and age on OEB rate applications to justify its requests for rate increases. The OEB considers and approves rate increases for Hydro One to charge its customers based on this information for the period covered by the application. If the information is inaccurate, OEB cannot adequately assess Hydro One's need for replacement assets, and accurately approve rate changes, either decreases or increases, to meet Hydro One's needs and be fair to its customers.

Inaccurate Information Provided to OEB in Rate Applications

The condition ratings provided by Hydro One in its rate applications to the OEB for the periods 2013–2014 and 2015–2016 were inaccurate and contained errors. As **Figure 3** shows, we found that 27 of the 41 transformers replaced in 2013 or 2014 had been identified in the rate applications as being in good or very good condition, yet Hydro One had plans at the time to replace several of these transformers due to their old age or poor condition. Similarly, we noted that 24 of the 45 transformers reported in the rate applications for 2015–2016 as having a low or very low risk of failure were already scheduled to be replaced during this period. The main reason Hydro One reported inaccurate asset condition and age to OEB is because it uses information from its unreliable internal systems.

Asset Analytics System Incomplete and Inaccurate

Hydro One maintains information on its transmission assets and scheduled maintenance primarily on its asset inventory module as part of its financial system. In 2012, Hydro One began using a new investment planning information technology system called *Asset Analytics*. Using data from Hydro One databases, including the financial system, *Asset Analytics* applies six factors to evaluate the condition of the asset and assess the risk of it failing: age of the asset; its condition; the amount spent on repairs on it; how much it is used compared to its capacity; its performance reliability based on unplanned outages; and its importance based on the number of customers it serves. *Asset Analytics* weighs all six factors for each asset type to generate a composite risk score that tells Hydro One which assets are at high risk of failing and should be considered for replacement.

We noted *Asset Analytics* was incomplete or inaccurate for a number of reasons:

- There are a number of key factors that are not recorded and considered by the system, including technological or manufacturer obsolescence information, known defects in the assets, environmental impact and health and safety concerns.
- The system does not properly weigh the risk posed by certain conditions that may shorten the life of the asset. For example, oil leaks are one of the leading reasons for replacing a transformer; however, the detection of a leak accounts for only about 15% of the transformer's condition rating and only 3.75% of the transformer's composite score.
- In 2013, a report by Hydro One's internal auditors found that 20% of notifications of defective equipment recorded by maintenance staff did not accurately identify the transmission asset that had the deficiency. For example, field staff may have discovered and recorded a transformer oil leak at a transmission station, but failed to record which specific transformer at the station was defective. As a result, the database could not be updated for the specific asset. The problem still existed in 2015; for the period January 1 to May 30, 2015, our testing noted that 13% of defective equipment notifications did not accurately identify the specific piece of equipment that was defective.

While we discussed earlier in **Section 4.1.3** that Hydro One's asset management staff generally do not rely on *Asset Analytics* for accurate asset condition reporting, Hydro One still uses the system's unreliable information to report to the OEB in its rate applications on asset condition to justify its requests for rate increases.

RECOMMENDATION 5

To ensure Hydro One is replacing assets that are at the highest risk of failure as determined through accurate asset condition ratings, Hydro One should:

- enhance its Asset Analytics system to include information on all key factors that affect asset investment decisions, including those related to technological/manufacturer obsolescence, known defects, environmental impact and health and safety;
- review and adjust current weighting assigned to risk factors in Asset Analytics to more accurately reflect their impact of asset condition and risk of failure;
- make changes to its Asset Analytics system and procedures so that updates to its data are complete, timely and accurate;
- conduct a comprehensive review of the data quality in Asset Analytics to update any incomplete or erroneous information on its assets and to ensure the information can support its asset replacement decision-making process; and
- investigate why known deficiencies in the reliability of the Asset Analytics system, such as those found two years earlier by internal audits, have not been corrected by management in a timely manner.

HYDRO ONE RESPONSE

Hydro One acknowledges that Asset Analytics data and algorithms continue to be developed and improved.

A data remediation project is under way to address the data gaps. In addition, data input and the change control process, along with data population and data quality dashboard metrics, will ensure data is populated in a complete, timely and accurate manner.

Hydro One has always intended to revisit the risk factors algorithms once a suitable post-deployment time period elapsed to provide enough results for the comprehensive review.

Hydro One intends to add health and safety and obsolescence factors to the tool.

Hydro One is addressing any outstanding internal audit recommendations regarding the Asset Analytics tool.

RECOMMENDATION 6

Hydro One should ensure that its applications to the Ontario Energy Board for rate increases include accurate assessments of the condition of its assets.

HYDRO ONE RESPONSE

Hydro One places a high priority on its obligation to provide the Ontario Energy Board with complete, accurate and supportable evidence in its rate applications.

The Company agrees that there is an opportunity to continuously enhance the quality and quantity of data in the Asset Analytics tool and has, for some time, been working toward this goal. The Asset Analytics tool represents only one input into the asset planning process and cannot replace decisions made by qualified engineers in conjunction with physical inspections.

A project is under way to address data improvement in the Asset Analytics tool with a focus on the transmission data to support the upcoming rate application. Its functionality will also be reviewed in 2016 to identify improvement opportunities.

4.5.2 Overall Spending to Maintain and Operate the Transmission System Has Increased, but Reliability Has Deteriorated

Hydro One's overall increased spending to maintain and operate the transmission system from 2010 to 2014 did not result in improved system reliability.

Costs related to the transmission system can be broken down into three main categories:

- Capital sustainment: refurbishment or replacement of components of the system to allow it to function as originally designed;
- Capital development: construction of new stations or lines, as well as upgrades to existing stations or lines to increase their capacity or capability; and
- Operations, Maintenance & Administration (OM&A): day-to-day costs related to operating the system.

Of the three cost categories, capital sustainment spending is expected to have the biggest overall impact on improving system reliability, followed by OM&A. Capital sustainment and OM&A spending are at the discretion of Hydro One. As shown in **Figure 5**, transmission capital sustainment spending increased by 74% from 2010 to 2014 ($356 million to $621 million) while OM&A decreased slightly ($421 million to $400 million). Overall spending in these two categories increased by $244 million (31%) from 2010 to 2014.

Decisions for Hydro One's capital development work generally involves either the Independent Electricity System Operator, government, Ontario Energy Board and/or customers, which may direct or help inform Hydro One where and when to increase transmission capacity by building new or replacing transmission lines and transformer stations. The addition of newer assets and upgrades also help to improve reliability. From 2010 to 2014, capital development spending decreased by 75% (from $523 million to $132 million).

However, the spending did not improve the reliability of the system. As shown earlier in **Figure 2**, the average frequency of outages of Hydro One's multi-circuit transmission system (covering 85% of electricity usage) increased 24% over this period. This was primarily due to an increase in the number of unplanned outages, such as those caused by equipment failure or weather, that occur at the same time as planned outages to replace aging transmission system assets. Some improvement was noted in the frequency of outages for all other areas covered by single circuit lines.

Hydro One Does Not Perform Cost Benchmarking against Comparable Utilities

Hydro One has acknowledged that its transmission cost measures can be benchmarked against those of other utilities, but it has not attempted to do so since 2009.

Until 2009, the Canadian Electricity Association (CEA) annually compared costs of all major Canadian transmitters. Thirteen types of costs were compared, including total cost incurred per energy transmitted (in megawatt hours) and per peak capacity (highest demand period measured in megawatt hours), and total OM&A costs per kilometre of transmission line and per transmission asset. The CEA's results from 2009 indicated that Hydro One spent less in eight categories and more in five categories than the CEA average, and that its system reliability ratings were better than the CEA average. The annual benchmarking study was discontinued by the CEA's board of directors because it was concerned that the data was being used by provincial regulators to set transmission rates.

Figure 5: Transmission System Costs, 2010–2014

Source of data: Hydro One

Cost	2010 ($ million)	2011 ($ million)	2012 ($ million)	2013 ($ million)	2014 ($ million)	% Change Between 2010 and 2014
Transmission operating, maintenance and administration	421	415	415	388	400	-5
Transmission capital sustainment	356	333	389	480	621	74
Total	**777**	**748**	**804**	**868**	**1,021**	
Overall percentage increase						**31**

We compared Hydro One's 2014 costs with the 2009 costs for the same 13 types of costs, and noted that its costs have increased in 12 categories, ranging from 2% to 82% over the period. The only cost type that decreased was in spending on OM&A, by 15%, which is a concern due to the number of assets it has in use that were beyond their expected service life (see **Figure 4**).

In its recent rate applications to the OEB, Hydro One included a study by a consultant it hired that compared Hydro One's staff compensation levels (i.e., salary, incentives and benefits) to those of other regulated transmission and distribution utilities in North America. In the 2013 study, Hydro One's staff compensation levels were found to be 10% higher than the median of other utilities. This was an improvement from the 2008 and 2011 studies, which showed Hydro One's compensation being 17% and 13% higher, respectively.

The OEB has recognized the need for comparison of Hydro One's costs with other similar transmitters. As part of the OEB's January 2015 decision to award Hydro One a transmission system rate increase for 2015-16, Hydro One agreed to complete an independent transmission cost benchmarking comparison study, and to provide it to the OEB in spring 2016 as part of its next rate application for 2017-2018. The study is to "provide a high level set of benchmarks and comparisons of Total Cost (defined as Capital and OM&A) and Business Performance (generally defined as service delivery effectiveness and efficiency) for Hydro One among North American peer organizations."

RECOMMENDATION 7

To ensure that its maintenance expenditures on the transmission system are cost-effective, and activities produce more timely improvements to the reliability of the transmission system, Hydro One should conduct:

- an assessment of its past maintenance expenditures and activities to determine what changes and improvements can be made to more effectively focus its efforts on the critical factors that improve system reliability and how its planned maintenance and capital improvements work can be completed with less risk of service disruption;
- benchmark cost assessments with other similar North American transmitters to compare its results with those that have reasonable expenditures and that maintain reliability; and
- a study of other leading cost-effective transmitters and consider implementing their best practices to quickly improve Hydro One's reliability and improve its costs.

HYDRO ONE RESPONSE

Hydro One will conduct an assessment of its past maintenance expenditures and activities, with a focus on critical factors and contributors to the transmission reliability measure.

Consistent with a recent Ontario Energy Board decision, Hydro One is undertaking a total cost benchmarking review for transmission.

4.1.8 Weak Security over Electronic Devices Increases the Risk of Unauthorized Use

We found that the security Hydro One has in place for most of the electronic devices on its transmission system is weak. The devices include the electronic controls for transformers, circuit breakers and reclosure equipment, as well as the controls for physical security and access to stations. Effective security is key to preventing sabotage, vandalism, software viruses, and unauthorized or unintentional changes to device software or controls, all of which can disrupt service or cause power outages that could impact hundreds to possible millions of customers, shut down businesses, government services, and transportation and communications networks. As well, if protection equipment is disabled, a system component could become overloaded and damaged or destroyed.

Hydro One manages security risk by adhering to Hydro One policies, one of which uses standards required by the North American Electricity Reliability Corporation (NERC) for critical IT assets. However, NERC's mandate is to ensure the reliability of the North American bulk electricity system, which includes transmission system assets of any of the continent's utilities that could have an impact on other jurisdictions' electrical systems. Assets at facilities are identified as critical for NERC purposes by the Independent Electricity System Operator. For instance, a major power outage on the bulk electricity system occurred on August 14, 2003, when a transmitter in one U.S. state caused cascading blackouts that affected 55 million people in seven other U.S. states and in Ontario. Most of Hydro One's transmission system has no impact on other jurisdictions, so many components of its system, particularly most transmission stations, do not fall under NERC's jurisdiction, and Hydro One therefore does not have to manage the security risks in a way that is compliant with NERC standards. We found that Hydro One's security standards for all other assets are less rigorous than NERC's even though damaged or modified equipment at stations not covered by NERC could still result in power outages to major industrial customers and small or large communities in Ontario, disrupting the economy and putting individuals at risk.

Only Hydro One's Ontario Grid Control Centre (Control Centre) and 53 (18%) of its 299 transmission stations fall under NERC's jurisdiction and therefore must meet NERC standards. The remaining 246 transmission stations do not impact other jurisdictions' electrical systems and do not have to meet NERC standards. As well, since NERC standards apply only to devices classified as critical to the operation of the bulk electricity system, only 35% of the devices at the Control Centre and 17% of the devices at the 53 relevant transmission stations must comply with NERC standards.

NERC maintains strict standards for restricting user access to devices and changes to software, assessing security vulnerabilities and implementing device back-up and recovery procedures. NERC also requires annual testing to certify that the standards are being met. Hydro One's security policies have less rigorous requirements for most electronic devices of the transmission system that would not be covered by NERC, but are still vital to Ontario's electrical grid. There was also no requirement for the Hydro One security policies to be tested periodically to ensure compliance. For example:

- Even though NERC standards and Hydro One's own policies for authentication require complex passwords and periodic changing of passwords, we noted that passwords for most devices at transmission stations considered non-critical by NERC came from a limited number of standard terms that were shared and known by most field staff. Passwords were not periodically changed to limit access to current authorized users. This severely reduces the effectiveness of passwords as an access control and increases the risk of these devices being accessed by unauthorized people.
- Hydro One does not conduct regular security risk assessments, as required for NERC covered devices, to determine how vulnerable its other transmission system devices are to security breaches and what kind of service disruptions could occur as a result. Without conducting assessments, Hydro One does not know the extent of the security risk posed by these devices. Hydro One does not know how many devices have not had a security assessment.
- Changes, whether authorized or unauthorized, to the settings on devices are not monitored at all stations not covered by NERC. Changes to settings could result in the devices not functioning properly or their security being compromised, and any changes should be recorded in either manual or system audit logs and the logs periodically reviewed to ensure changes correspond to authorized work orders.
- Only 34% of computers at transmission stations had virus protection installed, which could result in a disruption of operations or even a power failure. Hydro One informed us

that it could recall only one instance of a virus found on a computer at a transmission station, and that the stations' other computers either do not support virus protection or it had not been installed for fear it would affect the operation of the computers. However, Hydro One could not provide any security assessments that had been conducted for each type of electronic device to validate whether anti-virus software was or was not needed, and whether the devices were still vulnerable.

RECOMMENDATION 8

To ensure a robust and high level of security for the transmission system to mitigate the risk of service disruptions due to sabotage, vandalism, software viruses, and unauthorized or unintentional changes to device software or controls, Hydro One should develop a comprehensive security framework to cover all its electronic devices. The framework should include best practices for security over electronic devices, including establishing standards similar to those set by the North American Electricity Reliability Corporation, performing security vulnerability risk assessments on all electronic devices, establishing appropriate actions and controls to mitigate security risks to an acceptable level, and conducting regular audits to validate that the security framework has been adhered to.

HYDRO ONE RESPONSE

Hydro One acknowledges that a comprehensive security framework for electronic devices will help to mitigate security risks to the system. Hydro One is developing, and has already implemented certain aspects of, a new comprehensive security program that will apply to all electronic devices.

The North American Electricity Reliability Corporation (NERC) sets standards to protect the most critical grid components against likely threats, including man-made or natural phenomena.

Hydro One is in compliance with current and applicable NERC standards.

Security hardening is part of Hydro One's engineering standard for all deployed devices, all of which are currently being converted to the standard as dictated by their life-cycle replacement.

4.2 Distribution System

4.2.1 Poor Distribution-system Reliability Has Not Improved

From 2010 to 2014, Hydro One has been among the worst-performing large Canadian electricity distributors. Hydro One's average duration of outages and average frequency of outages (referred to in the industry as SAIDI and SAIFI, respectively) have remained in the fourth quartile (worst performing), according to the Canadian Electricity Association's (CEA) composite data. The average duration of outages and average frequency of outages of other utilities were 59% and 30% better, respectively, than Hydro One's over the same period.

As shown in **Figure 6**, Hydro One's distribution system reliability did not improve from 2010 to 2014. The total number of power outages on the distribution system increased by 11% over the period, from 27,360 in 2010 to 30,260 in 2014. Outages increased primarily due to equipment failures.

In 2014, the Ontario Energy Board (OEB) published a distributor scorecard for each local distribution company (LDC) in Ontario, which contained, among other things, various 2013 metrics for reliability and cost. Hydro One's average duration of outages and average frequency of outages for its distribution system were ranked worst and second-worst respectively among the 72 LDCs assessed.

Hydro One's website says that "the fewer people who live in [an] area, the more it takes to bring reliable energy and the higher the cost." Hydro One is primarily a distributor for rural communities,

Figure 6: Hydro One Distribution System Outages, 2010–2014

Source of data: Hydro One

	2010	2011	2012	2013	2014	% Increase Between 2010 and 2014
SAIDI (minutes per customer)	426	411	420	408	444	4
SAIFI (outages per customer)	2.6	2.6	2.6	2.5	2.7	4
Unplanned outages	21,757	22,825	23,221	21,037	24,095	11
Planned outages [1]	5,603	5,621	6,160	5,820	6,165	10
Total outages [2]	**27,360**	**28,446**	**29,381**	**26,857**	**30,260**	**11**

1. Hydro One must plan outages to do preventive maintenance or capital project work. Since most of the distribution system is single circuit, no alternative line is available to serve customers while this work is being done, and there is an outage until the work is completed.
2. Total outages do not include outages that Hydro One could not control that impacted more than 10% of its customers (for example, distribution system outages that resulted from outages on the transmission system or *force majeure* events such as storms). When these discounted outages *are* included, the % increases between 2010 and 2014 (the rightmost column in this figure) are as follows: SAIDI outage minutes per delivery point increased by 4% (from 542 minutes in 2010 to 564 minutes in 2014); SAIFI outages per delivery point increased by 2% (from 2.94 outages in 2010 to 3.0 outages in 2014); and total outages increased by 10% (from 30,181 in 2010 to 33,201 in 2014).

which is different from most other distributors, which typically service larger urban and surrounding areas. In Ontario, Hydro One has an average of 11 customers for each kilometre of distribution line, whereas other LDCs range from 6 to 81 customers, with the average for the four largest LDCs in Ontario being 51. The rural nature of Hydro One's customer base makes it more expensive to add additional distribution lines for individual customers, something that would improve the reliability of the system. As well, due to the longer distances involved, it takes Hydro One longer to respond to customer outages than it does LDCs operating in urban settings.

According to Hydro One, a customer survey in 2013 indicated that on average 83% were satisfied with the reliability of their electricity provider for the price they were paying. Only a few customers indicated they would be willing to pay more for better reliability. As a result of this survey, Hydro One said in its distribution system rate application for 2015-2019 to the OEB that it planned to maintain reliability for its customers at existing levels. It said it would not be cost effective to improve its reliability ratings compared to other utilities and its customers would not want to pay the cost associated with the improvements. In its decision, the OEB stated it "considers Hydro One's stance on its performance to be misplaced. Rather than argue that it would be too expensive to move up the ladder in comparison to those that are in the first, second and third quartile, Hydro One should be finding cost effective ways to improve its performance and provide evidence intended to convince the OEB that it has identified more appropriate benchmarks to which it can and will compare itself for continuous improvement tracking purposes."

RECOMMENDATION 9

In order to improve the reliability ratings for its distribution system, Hydro One should:

- establish more ambitious performance goals, targets and benchmarks for system performance; and
- develop short- and long-term strategies for new and enhanced activities and cost-effective investments that will improve its overall reliability record.

HYDRO ONE RESPONSE

Hydro One has now set multi-year reliability targets. The 2015 Corporate Scorecard included both 2015 and 2019 targets to signal the

Company's drive to continuous improvement. Further, for its distribution business Hydro One will continue to report its scorecard performance results annually to the Ontario Energy Board, as per its requirement.

Hydro One's strategies to improve distribution reliability include:

- increasing programs for line renewal and distribution station renewal;
- moving the location of rebuilt lines from off-road line sections to road allowances to improve access and facilitate fault-finding;
- enabling control room visibility and controllability of many devices, which will allow for faster restoration as the Company renews line-switching devices and distribution stations; and
- prioritizing vegetation management programs to focus on reliability to large commercial/industrial customers.

These initiatives are being incorporated into Hydro One's ongoing programs as this is the most cost-effective means of implementing them.

4.2.2 Vegetation-management Cycle Too Long, Reduces System Reliability

Hydro One's Has a 9.5-year Cycle for Clearing Vegetation Compared to 3.8 Years for Other Utilities

Hydro One's cycle for clearing vegetation (forestry) under, around and above distribution lines is more than twice as long as that of comparable utilities. Because trees are not trimmed back as often, Hydro One experiences more outages caused by fallen trees or tree limbs. We noted that line breaks caused by trees were the main cause of distribution outages from 2010 to 2014, responsible for 31% of all outages.

Hydro One's goal is, by 2023, to maintain an eight-year vegetation-management cycle for its distribution system, meaning it will complete vegetation management on all lines within eight years. Hydro One established this goal after a 2009 consultant's report found that the average vegetation-management cycle for 14 similar utilities was 3.8 years. In 2015, SaskPower, B.C. Hydro and Hydro-Québec had distribution system vegetation-management cycles ranging from two to five years. As of July 2015, we noted, Hydro One is operating on a 9.5-year vegetation-management cycle—over double the length of the cycles in use by similar utilities. Even its long-term goal to achieve an eight-year cycle is still double that of the average of other utilities.

At the time of our audit, Hydro One was focused on reducing the backlog of distribution lines that had not been cleared of vegetation in more than eight years. As time goes by, it takes longer to clear those lines because of the overgrowth over many years. From 2010 to 2014, Hydro One's spending on vegetation management increased by about 14%, from $161 million to $183 million. Over this same period, the number of tree-related outages on Hydro One's distribution system grew by 5%, from 7,747 in 2010 to 8,129 in 2014.

Hydro One Has Not Adopted a Shorter Vegetation-management Cycle, Even Though It Would Reduce Costs

Hydro One's own analysis has shown that a longer vegetation-management cycle is more costly and results in more power outages than a shorter one. Using this analysis, we estimate that if it had a four-year cycle, similar to those of comparable utilities, it would have been able to do its 2014 clearing work for $99 million, or $84 million less (a 46% reduction in accordance with their analysis) than the $183 million it actually spent, because there would have been less growth to clear. Hydro One's analysis also showed that a four-year cycle would reduce the duration of tree-caused outages by 30%, which would have decreased Hydro One's 2014 average duration of outages by 36 minutes (from 444 minutes on average per customer to 408 minutes).

In addition, we noted that the OEB has pointed out to Hydro One that its vegetation-management costs are too high. As a result, the OEB decided to reduce the amount Hydro One can spend on vegetation management for the 2015-2017 period by $39 million. The OEB expected Hydro One to find cost efficiencies to keep to its goal of an eight-year vegetation-management cycle.

Improper Prioritization of Vegetation-management Work Resulted in More Outages Caused by Trees

Hydro One could do a better job prioritizing the distribution lines that require vegetation management, and directing forestry staff (381 full time equivalent positions in 2014) on which lines to clear each year. By doing so, it could reduce the number of power outages caused by trees.

To determine which distribution lines need to be cleared of vegetation each year, Hydro One uses a ranking system that considers four factors: the frequency and duration of tree-caused outages on the line, the number of years since the line was last cleared, the number of unresolved tree-related problems reported on the line by Hydro One employees, and the number of unresolved tree-related problems reported by customers.

Hydro One's own analysis shows that the number of outages caused by trees on a distribution line is reduced by over 45% in the three years after vegetation is cleared; however, outages increase by 4% each year after that until vegetation is cleared again on that line. This indicates that to effectively reduce the number of such outages experienced by customers, Hydro One should prioritize its vegetation-management work on the distribution lines that have experienced the most outages caused by trees. However, we found that Hydro One's Asset Management group, which decides on the distribution lines that local forestry work crews will perform vegetation management on each year, gives the lowest weighting (15%) to the data on tree-related outages in scheduling lines.

This rating system has led to examples where vegetation was cleared on lines that had had fewer tree-caused outages than others in the same region. For example, forestry staff in northern Ontario were directed to clear vegetation on three lines in 2014. The line that was cleared first had had no tree-related outages in the previous three years, and the line cleared second had had four such outages in that time. Work on the third line, which had had 11 tree-related outages in the previous three years, started in September 2014 and was only a little bit more than half done by December of that year, and that line experienced tree-related outages in October 2014 and January 2015.

RECOMMENDATION 10

To lower costs and ensure Hydro One's vegetation-management program is effectively reducing the number of tree-related outages experienced by its distribution system customers, Hydro One should:

- shorten its current 9.5-year vegetation-management cycle to a more cost-effective cycle of less than four years, in line with other similar local distribution companies; and
- change the way it prioritizes lines that need clearing so that lines with more frequent tree-related outages are given higher priority and work crews are dispatched sooner.

HYDRO ONE RESPONSE

Hydro One has plans to shorten its current 9.5-year vegetation-management cycle. Hydro One's strategy to keep costs affordable to the ratepayer, while getting feeders to an eight-year cycle over the longer term, is appropriate and reasonable. The increased initial short-term cost of moving to a four-year forestry cycle is not consistent with Hydro One's strategy to keep rates affordable.

The Company will continue to review its vegetation-management program and improve its prioritization model to support decision-making.

4.2.3 Information on Condition of Key Distribution System Assets Not Reliable

Incomplete and unreliable data leads to poor asset-replacement decisions. We found that, as with the transmission system, the Asset Analytics information system could not be relied on for decision-making relating to key distribution system assets. For instance:

- data for evaluating the 152 distribution station circuit breakers is limited, and there are no ratings on the condition of these breakers. When older circuit breakers are in need of replacement, Hydro One exchanges them with new reclosure equipment, costing $114,000 each. We also found there was no data on the age of more than half the 2,235 pieces of reclosure equipment already installed at distribution stations;
- fourteen distribution station transformers that were less than 10 years old, with a replacement cost of $650,000 each, were mistakenly assigned age scores of 100, which would be past their 40-year expected service life; and
- data such as information on performance, use or age was missing for all 51 mobile transformer units, which have replacement costs of $2 million each.

RECOMMENDATION 11

To ensure that management decisions on replacing distribution system assets are made using reliable and complete information, Hydro One should take the actions needed to ensure its Asset Analytics system provides timely, reliable, accurate and complete information on the condition of assets.

HYDRO ONE RESPONSE

Hydro One acknowledges that Asset Analytics data and algorithms continue to be developed and improved. The Assets Analytics tool continues to be enhanced to address recognized data gaps and process deficiencies.

As noted earlier, a project is under way to address data improvement in the tool. Its functionality will also be reviewed in 2016 to identify improvement opportunities.

4.2.4 Distribution Assets in Service Beyond Their Expected Life Increases the Risk of Power Outages

Hydro One increases the risk of power failures by not replacing distribution system assets that have exceeded their planned useful service life. In addition, it sets the planned useful life for assets longer than other comparable LDCs. For example, we noted the following:

Wood Poles

Fallen poles and those at risk of falling often create a public safety hazard that requires emergency action to replace the pole. Hydro One has approximately 1.6 million wood poles in its territory, and 202,000, or 13%, of those poles have exceeded their expected life of 62 years. From 2010 to 2014, there were 47 outages caused by fallen wood poles. The cost to replace the 202,000 poles would be about $1.76 billion. Moreover, other LDCs use an expected service life of only 44 years for wood poles; Hydro One has 413,000 poles, or 26%, that are from 45 to 62 years old, that would cost an additional $3.59 billion to replace.

Hydro One assesses the condition of each pole every six years and bases its replacement strategy on the age and condition of the poles. As of June 2015, approximately 61,000 wooden poles were rated as being in poor or very poor condition, and therefore as having the highest probability of failure. Only about 12,000 poles are replaced each year, much less than are needed to address the risk of poles that fall or that are in service beyond their expected service life.

Station Transformers

The distribution system includes 1,214 station transformers with a replacement value of $650,000 each. Hydro One sets a 50-year expected service life for these transformers, and 243 units, or 20%, were in service beyond their expected service life. The cost to replace the 243 transformers would be $158 million. Furthermore, we noted that other LDCs use 45 years as the expected service life. Hydro One has another 157 station transformers, or 13%, that are from 46 to 50 years old and would cost $102 million to replace.

RECOMMENDATION 12

To reduce the risk of equipment failures that can cause power outages on the distribution system, Hydro One should:

- replace assets that have exceeded their planned useful service life; and
- reassess its planned expected service life for assets and justify any variances in the years used by Hydro One compared to other similar local distribution companies.

HYDRO ONE RESPONSE

Hydro One acknowledges that assets beyond their service life have a greater risk of failure. However, Hydro One considers a number of factors when making decisions on pole replacements, including pole condition and expected service life. The Company's aim is to maximize the life expectancy of an asset and optimize work efficiency in order to derive the most value from its investments and to manage costs that are borne by customers.

Hydro One has a pole replacement program that considers a service life based on its experience and the operations, maintenance and conditions under which the asset is used.

The Company's experience is that our expected service life for various assets is appropriate given the operations, maintenance and conditions under which they are used. Hydro One does not replace assets that, while old, are in good working condition.

4.2.5 Increased Spending on Distribution System Did Not Result in Improved Reliability

Hydro One's increased spending on capital sustainment and operations, maintenance and administration (OM&A) from 2010 to 2014 for its distribution system did not result in improved system reliability.

Figure 7 shows the changes in spending on OM&A and capital sustainment from 2010 to 2014. Because spending in these two areas relates to operating the system and repairing and replacing equipment, it should have the biggest impact on the reliability of the system. Hydro One spent about 9% more on capital sustainment in 2014 than it did in 2010 ($314 million in 2010 compared to $343 million in 2014) as well as 22% more in OM&A ($551 million in 2010 compared to $675 million in 2014). While Hydro One's 18% overall increase

Figure 7: Distribution System Costs, 2010–2014

Source of data: Hydro One

Cost	2010 ($ million)	2011 ($ million)	2012 ($ million)	2013 ($ million)	2014 ($ million)	% Change Between 2010 and 2014
Distribution operating, maintenance and administrative	551	554	553	611	675	22
Distribution capital sustainment	314	274	262	323	343	9
Total	**865**	**828**	**815**	**934**	**1,018**	
Overall percentage increase						**18**

in spending in these two areas from 2010 to 2014 would have been expected to improve system reliability, especially as the repair or replacement of old system equipment should result in fewer equipment failures, outages actually increased by 11% over the same period (see **Figure 6**).

As mentioned earlier, Hydro One's OM&A and capital sustainment costs are higher than other similar utilities partly as a result of staff compensation that is 10% higher, according to a 2013 study. As well, because its business is in largely rural areas, Hydro One has little control over certain other costs. For example, Hydro One needs more assets per customer than do large urban LDCs, which increases overall costs. It has about one customer per wood pole on its distribution system, compared to a range of up to nine customers per pole for other LDCs in Ontario. Nevertheless, we compared Hydro One's 2014 costs, reliability, and the rates that its customers pay with the eight other rural LDCs in Ontario that have fewer than 20 customers per kilometre of line and found that Hydro One:

- had the third-highest operating costs per customer; and
- was the second-worst in reliability; while
- residential customers paid the second-highest rates.

In 2010 (the last year that comparative cost information was collected for the distribution system), the Canadian Electricity Association found that Hydro One had higher costs than the average of its members from 2006 to 2010. As well, in 2014, the OEB gave Hydro One its lowest cost-efficiency ranking among distributors. Hydro One's actual costs were more than 25% higher than what the OEB expected, indicating that Hydro One should be able to find cost efficiencies to perform the same amount of work it currently does at a lower overall cost.

RECOMMENDATION 13

To ensure that its capital sustainment and maintenance expenditures on the distribution system are cost effective and produce more immediate improvements to the reliability of the distribution system, Hydro One should:

- conduct an assessment of its past maintenance expenditures and activities to determine how to focus efforts on more critical factors that affect the system; and
- benchmark cost assessments with other similar local distribution companies (LDCs) in Ontario and Canada, and consider implementing the best practices of the leading cost-effective LDCs.

HYDRO ONE RESPONSE

Hydro One will conduct an assessment of its past maintenance expenditures and activities, with a focus on critical factors and contributors to the distribution reliability measure. Hydro One continues to prudently manage its distribution investments to address targeted improvements in reliability over the long term. This approach also allows the Company to manage rate increases for its customers by balancing reliability investments with rate increases.

Hydro One is undertaking several benchmarking studies, as directed by the Ontario Energy Board (OEB), to support its approaches to investment, maintenance and sustainment activities.

In addition, and at the direction of the OEB, the Company will also undertake a third-party review of its distribution system plan that will provide unit cost validation for forestry, pole replacement and station refurbishment.

4.2.6 Smart Meter Capabilities Not Used to Improve Response to Power Outages

By 2014, Hydro One had installed 1.2 million smart meters on its distribution system based on direction from the provincial government. The total cost of the installation was $660 million. We noted that Hydro One uses the smart meters predominantly to provide electronic information remotely for billing purposes, and has not turned on the feature that enables a smart meter to let it know whether a customer's power is on or off. Hydro One relies on customers calling to report that they do not have power, and this information is often neither timely, complete, nor accurate. If it received the information from smart meters, Hydro One's field crews would be better able to pinpoint the location and area of an outage, rather than having to patrol the entire distribution line. Better information would save money by eliminating inefficient or unnecessary work crew dispatches, and service to customers would be restored sooner.

During our audit, Hydro One was conducting a pilot project to assess using the information from smart meters to identify customers with power outages, although it had not established a timetable for completing the project or using smart meters this way for all its customers.

Hydro One has improved its communications with customers on outages by providing real-time updates on its website and through its mobile app. However, the information on outages is still limited to what the utility finds out from customer calls and then from periodic updates from work crews. Information from smart meters would provide more timely and accurate information on where power has or has not been restored.

RECOMMENDATION 14

To lower its repair costs and improve customer service relating to power outages through more accurate and timely dispatches of its repair crews, Hydro One should develop a plan and timetable for using its existing smart meter capability to pinpoint the location of customers with power outages.

HYDRO ONE RESPONSE

In recognition of the opportunity to leverage some of the additional capabilities of its smart meters for storm response, the Company initiated a pilot project two years ago that has been testing smart meter functionality to validate customer reported outages. This functionality was used in 25,000 instances, allowing the Company to avoid more than 5,800 crew dispatches.

Further validation of pilot results may allow the Company to make a supportable investment case for integration with the Company's outage management system.

4.3 Spare Transformers in Storage Not Aligned with Hydro One's Needs

Hydro One keeps a number of spare transformers in case it needs to quickly replace any of the 1,900 it has in service. However, the number of spares it keeps in storage is excessive and this costs it more than necessary to maintain spares.

From 2010 to 2014, the failure rate of transformers was only 10 per year, or 0.5% failure rate, but Hydro One maintains 200 spare transformers—140 for the distribution system and 60 for the transmission system—valued at $80 million at its Pickering Central Maintenance Shop. This works out to be almost an 11% ratio of spares to in-service transformers. Transformers in storage also require maintenance with an annual cost of $2.3 million.

Over the same period, Hydro One increased its inventory by purchasing 20 new spare transformers per year, or double the number needed to replenish its spares inventory. As well, it mostly used the newer transformers in storage to replace ones that failed, leaving older ones in storage. By August 2015, there were 96 transformers in storage that were no longer covered by the manufacturers' five-year warranty, including 35 that had been in storage for at least 10 years.

Hydro One told us it has to stock spare transformers because it takes on average [illegible]10 days to order and receive replacement distribution system transformers from suppliers, and 3[illegible] days for larger transmission system transformers. However, if it maintained a lower number of spare transformers, it could reduce costs and still respond to transformer failures in a timely manner.

Hydro One uses a model to help forecast the number of transformers to keep in storage. The model considers asset type, past failure rate, age and number of transformers in service, and delivery time for replacements from suppliers. However, Hydro One does not apply the model to the vast majority of types of distribution system transformers—45 of the 60—it uses, nor to two of the 16 types of transmission system transformers. As well, Hydro One has not followed the model to determine the number of spares to stock, even for those types to which it applies the model. For instance, the model showed it needed to stock 28 spares for the types of transmission system transformers for which it uses the model, but Hydro One stocks 44. Similarly, Hydro One stocks 84 instead of the 43 distribution system transformers recommended for the types for which it uses the model.

Following our inquiries, Hydro One senior management acknowledged it could reduce the number of spare transformers it has on hand by 69, or 35%, and save $20 million over the next 10 years based on current net book value of these assets. However, senior management said Hydro One could only achieve the reductions if it were to standardize the transformers in service to reduce the number of different types. For instance, since 2009, it has reduced the number of types of transformers it uses on its transmission system from 30 to 16, with plans to further reduce that to 14 types. Hydro One said this standardization had already saved $50 million to $60 million in procurement costs since 2009, or 15%, through volume discounts from vendors. However, we noted that no similar plans were in place for standardizing distribution system transformers, so we estimate that another $25 million in procurement savings over 10 years could be forgone if no changes are made to standardize distribution system transformers.

Given its inventory levels and the relatively low failure rate of transformers, we estimate that Hydro One requires only 120 spare transformers in total. By not buying more spare transformers than it needs over the next 10 years, Hydro One would save $50 million to $70 million in purchase costs for transformers, as well as $1 million annually in maintenance costs. This is in addition to the $25 million savings possible over the next 10 years we noted above from standardizing distribution system transformers.

RECOMMENDATION 15

To reduce its excess inventory of spare transmission and distribution system transformers to an appropriate cost effective level, and to lower costs while still being able to replace failed transformers in a timely manner, Hydro One should:

- improve the forecasting model it uses for predicting transformer failures, and maintain its inventory levels of spare transformers in accordance with the forecasts; and
- develop a plan to standardize in-service transformers as much as possible, and set targets and timelines for achieving savings from better managing both spare and in-service transformers.

HYDRO ONE RESPONSE

Hydro One agrees that improving forecasting of requirements and standardizing its transformer fleet will allow for a future reduction in transformer inventories. Standardization of distribution transformers and the associated reduction to the spares inventory will occur over time as end of life transformers are replaced with standardized units.

The Company is leveraging its current strategy for its transmission transformers to develop and implement a comparable strategy for its distribution transformers.

Hydro One expects that this initiative will include improvements to the forecasting model it uses to predict transformer failures.

4.4 Data from Power Quality Meters Not Used to Help Customers Avoid Disruptions

Hydro One could be monitoring and analyzing power quality events—episodes when voltage levels fluctuate—on its transmission and distribution networks to proactively improve service to its large industrial customers, but it instead waits until customers complain before it takes any action. Major transmission customers, especially automotive and petrochemical businesses that receive power directly from the transmission network, expressed concern about their power quality in a 2014 Hydro One customer satisfaction survey. Fluctuations in voltage levels can disrupt the operation of customers' production equipment or a utility's distribution system. This concern had been expressed in previous surveys.

Hydro One's large industrial customers have suffered production losses as a result of power quality events. For example, two large customers that are on the same distribution line in eastern Ontario complained publicly about their local power supply being unreliable. One plant claimed to have lost $1.2 million in profits since it opened in 2009 because of power quality issues that interrupted plant production. In March 2015, the customer reported five power quality events and a nearby customer reported six.

Hydro One has received 150 power quality complaints from its 90 major industrial customers on its transmission system since 2009. At the time of our audit, Hydro One had figured out what caused the events—including lightning strikes and defective equipment—in all but 12 of the cases. Some complaints were two years old and were still being investigated.

For the distribution system, Hydro One does not formally track or monitor the number of power quality complaints it receives from its large industrial customers on its distribution system. However, it told us it knew of five such customers that had complained about power quality in 2013 and 2014.

To locate, record, analyze and help resolve power quality events, Hydro One needs power quality meters across its distribution and transmission systems. Since 2010, Hydro One has installed 138 of these—at a cost of $8.2 million—in places where problems were occurring, albeit covering only a small area of their systems.

Even with the meters installed, Hydro One is only responding to specific customer complaints, rather than periodically or in real time analyzing the data from the meters and taking immediate action.

As an example, an industrial transmission customer in the forestry sector was experiencing repeated power quality problems that caused production to be interrupted. Hydro One started investigating only after the customer complained. Data from the nearby power meter helped demonstrate that lightning was causing the disruptions and that Hydro One needed to improve the grounding of a nearby power supply line. It also inspected a transmission line nearby and found that two transmission towers had surge arrestors that failed. Hydro One retrofitted the towers with new surge arrestors, which minimized the impact of lightning on the customer's power supply. If Hydro One had proactively analyzed its power quality meter in the area, it could have used the information to help find and correct this issue before the customer complained, thus providing the customer with a more reliable power supply.

RECOMMENDATION 16

To minimize the number and impact of power quality events for its large customers, Hydro One should proactively use the data collected by its power meters to help assess the frequency and location of power quality events on its transmission and distribution systems and thereby improve the reliability of the power supply.

HYDRO ONE RESPONSE

The Company agrees that power quality (PQ) incidents are of concern to some of its large transmission and distribution customers.

The Company is implementing initiatives to address large customer PQ issues more proactively by providing PQ information to customers, and working with the information to estimate the frequency, duration, and magnitude of potential events that could have an adverse effect on its equipment and processes.

4.5 Weak Management Oversight Processes over Capital Project Costs

4.5.1 No Comparison of Project Costs to Industry Standards

Hydro One has not assessed whether what it pays for capital construction projects is reasonable or competitive with industry standards. Hydro One manages its own projects and uses its own staff for most of its construction work, but it has never compared the cost of its projects to what it would pay if its contracts were offered to external bidders.

Hydro One spent $1.05 billion, $1.12 billion and $1.20 billion in 2012, 2013 and 2014, respectively, on transmission and distribution capital construction projects, including replacing or building new transformer stations, and installing switching and circuit breaker equipment, lines and cabling, and steel towers and wood poles. We found individual project estimates included internal charges ranging from 40% to 55% of total approved costs, as Hydro One's own employees filled many roles in the projects, including engineering, construction, project management and project commissioning. The remaining costs were generally paid to external vendors for supplies, materials and equipment procured through a competitive bidding process. Generally, entire projects from design to construction have not been tendered out, although Hydro One had plans during our audit to start doing this for certain projects. As a result, it is hard to assess the reasonableness of Hydro One's project costs because so much of the cost is internal.

In addition, we found that all estimates used for approval of capital construction projects included large contingency and escalation charge allowances, over and above the original project cost estimates. These allowances significantly increased the projects' approved cost before construction. The allowances were included to fund additional costs, either internal or external, that could be incurred by the project. Contingency charges added 10% to 30%, or 20% on average, to the original project cost estimate, and escalation charges added on average 8%, based on 3% to 5% per year of construction. For two transmission capital projects, for example, contingency and escalation charges added more than $4 million to each project's original project cost estimate, or more than 15% and 28%, respectively.

The large allowances minimized any incentive for staff to complete a project at its original project cost estimate. We noted that a similar large utility in Alberta, which says it follows industry practices, includes contingencies of only 8% to 12% of project costs in its capital construction project budgets.

Following discussions during our audit, Hydro One told us that, effective June 2015, the escalation charge for all items in cost estimates would be 2.5% per year, and that this new rate is consistent with the one used by B.C. Hydro, Manitoba Hydro and Hydro Québec.

A consultant's report commissioned by the Ontario government to review Hydro One's operations in 2014 recommended the use of industry benchmarks to improve the accuracy of the utility's cost estimates for capital projects and to challenge project delivery teams to decrease project implementation costs. Using benchmarks also increases the transparency of cost estimates. Hydro One told us that in 2015 it aimed to deliver capital work projects for 2.5% to 4% less than the previous year, through a tighter estimating process.

4.5.2 Management Does Not Compare Actual Project Costs and In-service Dates with Original Estimate to Determine If Projects Are Completed On-time and within Budget

We found that the reports that senior management received about the progress of capital projects did not include enough detail about costs and timelines to allow them to effectively assess how well a project was being managed. For instance, these reports included either the most recently approved or final budgets and project completion dates, rather than using the figures from the original approvals, so that projects typically appeared as having been done on budget and on time. The project management reporting system was not designed to compare original cost estimates and completion dates with the final costs and dates, something that would provide senior management with more accurate information on how projects were managed from start to finish. Instead, monitoring by senior management was limited only to ensuring that projects were completed within the budgets approved.

Hydro One management told us that reviewing individual project files to see whether capital projects were delivered in accordance with the original project approvals and completion dates would take too much time. We asked them to prepare us a report that compared the original project approval, including allowances, with the actual project cost for each project completed for the years 2013 to 2015, in order to determine the extent to which large allowances, on average at 28%, were used up. The report we received in June 2015 was incomplete, and only included 61 of the 105 projects approved for over $1 million. The incomplete report showed these 61 projects were approved for a total of $1.027 billion and cost $963 million to complete, indicating that on average, projects used up an allowance of 22% more than the original project cost estimate, or an estimated $150 million more in total.

4.5.3 Actual Project Costs Exceeding Initial Approved Budget

Despite the fact that capital project budgets already included an average 20% contingency charge allowance and 8% escalation charge allowance, we found several completed projects with cost overruns. **Figure 8** shows three such projects.

Figure 8: Capital Construction Projects with Large Cost Overruns

Source of data: Hydro One

Project	Date Project Approved	Original Approved Budget ($ million)	Date Project Completed	Project's Actual Cost ($ million)	Amount by Which Project Over Budget ($ million)	% by Which Project Over Budget	Primary Reasons for Costs Over Budget
Replace circuit breakers of transmission system at Toronto south transformer station	July 2011	6.7	June 2014	9.1	2.4	36	Project magnitude was underestimated and key tasks omitted in original estimate.
Replace circuit breakers of transmission system at Toronto east transformer station	April 2011	19.0	November 2014	31.2	12.2	64	Estimate was based on another similar project without a proper assessment of the requirements for this project.
Construct a new relay room and replace equipment at Toronto south transformer station	December 2010	8.6	December 2014	13.3	4.7	55	Certain engineering, materials and construction labour costs were omitted in the original estimate.

We reviewed projects that had undergone changes to their scope and cost projections and noted common causes that included:

- the complexity and magnitude of the work was significantly underestimated at the planning stages, resulting in increased cost and delays to the project's completion date;
- in-depth site visits were either not conducted or were insufficient for understanding the magnitude of the project and the complexity of the work required; and
- unit costs used in the estimation process were not current.

We noted that another project, ongoing at the time of our audit with a projected completion date of December 31, 2015, had an original cost estimate of $55.1 million that was released in June 2013 with the understanding that there were certain risk factors that could increase project costs. In October 2014, Hydro One revised the cost estimate to $90.3 million, requiring a variance approval of just over $35 million. The original cost estimate assumed that only eight kilometres of road had to be built, but the revised project included construction of 55 kilometres of road and three bridges, as well as increasing the height of 35 existing steel towers. Because there had been insufficient site visits before the budgeting process began, the original estimate failed to account for the number of kilometres of roads to be built through extremely difficult terrain, and hence, the full scope of the project.

RECOMMENDATION 17

To ensure that management can better manage and monitor capital projects that use its own workforce, as well as lower project costs, Hydro One should:

- use industry benchmarks to assess the reasonableness of capital construction project costs, and whether using internal services and work crews is more economical that contracting out capital projects;
- use and adhere to contingency and escalation allowances that are more in line with industry norms for capital construction projects;
- improve its management reporting and oversight of project costs by regularly producing reports that show actual project costs and actual completion dates compared to original project cost estimates, cost allowances used, original approved costs, subsequent approvals for cost increases, and planned completion dates; and
- regularly analyze its success in preparing project estimates by comparing them with final project costs.

HYDRO ONE RESPONSE

The Company has taken steps to improve its estimating process by increasing the amount of pre-engineering work to provide more accurate project estimates.

Further, Hydro One has implemented a project closure process for larger projects to ensure work is completed as planned, project estimates are compared against actuals, all variances are explained and learnings are incorporated into future projects.

Hydro One provided Auditor General staff with access to all reports available but did not have a report that existed in the format requested. Hydro One is updating its standard reporting to include originally approved budget and in-service dates.

Hydro One is also reviewing the allowances used in project estimates. Given the complexity in this area, Hydro One is committed to continuing to find improvements in its processes.

Appendix—Glossary of Terms

Prepared by the Office of the Auditor General of Ontario

Asset Analytics—An information system implemented by Hydro One in 2012 that contains data on its transmission and distribution assets (including their age, criticality and performance) and assists Hydro One in ranking the relative condition of assets when making decisions on replacing them.

bulk electricity system—The portion of an electricity provider's transmission system that transfers electricity above 100,000 volts that can have a direct or indirect impact on other jurisdictions' electrical systems.

Canadian Electricity Association (CEA)—A national body made up of Canadian electricity generators, transmitters and distributors that allow members to share operational best practices and system reliability data.

circuit breaker—Equipment used in the transmission and distribution system designed to automatically interrupt power when there is an overload, which is when more power is flowing through the circuit than the circuit is designed to handle.

delivery point—Used in the transmission system to refer to a point of connection between a transmission station and a transmission customer's facilities. This can be single-circuit (only one line connecting a transmission station to a customer) or multi-circuit (multiple redundant lines).

distributor/Local Distribution Company (LDC)—Local utility that purchases electricity from Hydro One or another transmitter and distributes electricity on its own distribution network at voltages below 50,000 volts to residential or industrial customers in their area.

Independent Electricity System Operator (IESO)—Administrator of the Ontario wholesale electricity market to match electricity supply with demand. Also responsible for forecasting Ontario's long- and short-term electricity requirements and providing direction to electricity transmitters and distributors over capital work needed to increase the capacity of Ontario's electricity system.

Ministry of Energy—The Ministry of Energy is responsible for setting the legislative and policy framework to assure a clean, reliable and affordable energy system for all Ontarians. It develops and advises on all aspects of energy policy for Ontario, including policies for electricity, natural gas and oil. It oversees the Ontario Energy Board (OEB) and the Independent Electricity System Operator (IESO), and represents the shareholder—the provincial government—in dealings with Hydro One and Ontario Power Generation (OPG).

North American Electricity Reliability Corporation (NERC)—A not-for-profit regulatory authority whose mission is to assure the reliability of North America's bulk electricity system. NERC develops and enforces reliability standards that must be followed by North American electricity transmitters, including Hydro One.

Ontario Energy Board (OEB)—The regulator of electricity in Ontario, OEB's objective is to promote a viable, sustainable and efficient energy sector that serves the public interest and assists consumers in obtaining reliable energy services at a reasonable cost. It licenses electrical generators, transmitters and distributors, which must follow established codes to remain licensed. It also approves the rates that electrical utilities can charge their customers, as well as the construction of any electrical transmission lines that are more than two kilometres long.

Ontario Grid Control Centre (OGCC)—Hydro One's around-the-clock central control centre, which remotely monitors and operates transmission equipment, responds to alarms caused by equipment failures and can restore, divert and interrupt power transmission. The OGCC also reviews, approves and authorizes all planned outages, and co-ordinates response activities for unplanned outages on the transmission system. The OGCC receives calls from the public and dispatches work crews to respond to distribution power outages.

power generators—Power generators are companies that produce electricity and feed electricity into the Ontario electricity grid. Ontario Power Generation (OPG), a Crown corporation, is Ontario's largest power generator, operating electricity-producing stations throughout Ontario. Over the North American bulk electricity system, electricity can also be received from out-of-province power generators.

rate application—Made by all transmitters or distributors to the Ontario Energy Board to obtain approval for funding by way of the rates it charges its customers to operate and expand the electrical system. OEB's approval of the revenue required by the transmitter or distributor sets part of the electricity rate paid by electricity consumers.

reclosure equipment—A somewhat more complex form of circuit breaker, which protects electrical transmission systems from temporary voltage surges and other unfavorable conditions. In addition to preventing electrical overloads from passing through a circuit, reclosures can automatically "reclose" the circuit and restore normal power transmission once the problem is cleared.

Smart Meter—An electronic device that records consumption of electricity in intervals of an hour or less and communicates that information back to the utility for billing and monitoring. This allows for time-of-use pricing to encourage customers to shift their electricity use to times of lower demand.

System Average Interruption Duration Index (SAIDI)—A measure of reliability that uses the average length of outages experienced by customers or delivery points on an electrical system.

System Average Interruption Frequency Index (SAIFI)—A measure of reliability that uses the average frequency of outages experienced by customers or delivery points on an electrical system.

transformer—A device used to change the voltage level of electric current. Transformers can either step up (increase) or step down (decrease) voltage. Hydro One mostly uses step-down transformers to convert high voltage levels to lower voltage levels for consumer usage.

transmitter—An electrical utility, such as Hydro One, that transfers electricity over long distances at voltages above 100,000 volts between electricity generators (such as Ontario Power Generation) and LDCs or large industrial users.

vegetation-management cycle—The number of years it takes to perform tree-cutting and bush-clearing around the entire electrical system.

volts or voltage—In simple terms, electricity is measured and expressed in volts. The voltage between two points is the force that drives electrical current between those points. Electricity at higher voltages travels long distances more efficiently. Electricity voltage is stepped down when it has to travel shorter distances and for practical use by end users, such as LDCs or industrial or residential customers. The current is measured in amperage or amps, and represents the amount of electricity available for usage or the amount used. The voltage times the amperage equals the amount of watts of electricity used. Ontario's power usage is commonly measured in kilowatt/hours (1,000 watts per hour) and megawatt/hours (1 million watts per hour).

Chapter 3

Treasury Board Secretariat

Section 3.07 Infrastructure Planning

1.0 Background

Ontario is served by a large and diverse portfolio of public infrastructure with a replacement value of close to $500 billion. The portfolio includes highways, bridges, transit systems, schools, universities, hospitals, drinking water and wastewater systems, parks, government buildings, and a wide variety of other assets.

The Ontario government oversees about 40% of these assets either directly or through broader-public-sector organizations such as hospitals, school boards and colleges. In the fiscal year ended March 31, 2015, the total net book value of infrastructure owned by the province and its consolidated broader-public-sector organizations was $97.1 billion (net book value is the original cost of the asset, less accumulated depreciation, as reported in the Public Accounts of the province) (See **Figure 1**). (Note that energy infrastructure assets, such as nuclear, gas, and hydro-electric power plants, are excluded from **Figure 1** because they are funded by Ontario ratepayers rather than the government or broader-public-sector organizations).

In addition to the assets it owns directly, the province provides infrastructure funding through transfer payments to municipalities, universities, social-service organizations and long-term-care

Figure 1: Portfolio of Public Infrastructure Owned by the Province as Reported in Public Accounts

Sources of data: Treasury Board Secretariat and Public Accounts 2014/15

Sector		Value ($ billion)
Transportation	• Metrolinx: GO Transit has 3,250 kilometres (km) of routes (450km train, 2,800km bus) serving 7 million passengers in an area of 11,000 square km • 17,000 kilometres of provincial highways and 2,900 bridges	32.5
Health	• 148 hospitals on 229 sites	25.0
Schools	• 5,000 schools with more than 26 million square metres of space and 1.96 million students	22.8
Colleges	• 24 colleges with 140 campuses and almost 200,000 full-time students	3.8
Other	• 980,000 acres of land • 5,700 buildings including offices, courthouses, correctional facilities and OPP detachments	13.0
Total		**97.1**

homes. These recipients are responsible for planning and managing their infrastructure to meet their needs.

1.1 Infrastructure Plans and Spending

Much of Ontario's current stock of infrastructure was built between the end of the Second World War and the 1970s in response to wartime shortages and the post-war baby boom. Infrastructure spending slowed over the period between 1980 and 2005 as government priorities shifted during difficult economic conditions.

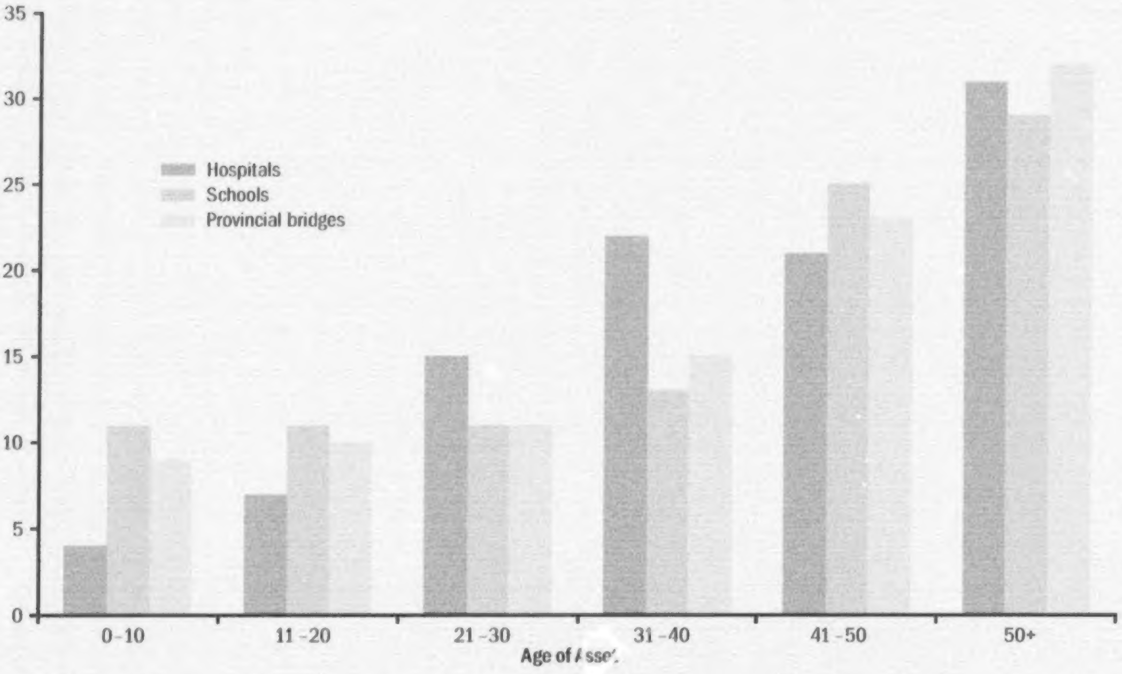
Infrastructure investments picked up again in the last 10 years, but Ontario is still managing an aging asset portfolio. An overview of the age of major assets in the province is shown in **Figure 2**. The average age of the province's hospitals is 45 years while that of schools is 38 years. Additionally, over 50% of both hospitals and schools are at least 40 years old.

The province released two long-term infrastructure plans in the past decade to outline the direction it wanted ministries and government agencies to follow for infrastructure renewal and expansion:

- *ReNew Ontario, 2005* identified the transportation, health and education sectors, among others, as needing investment, and committed to invest $30 billion between 2005 and 2010, including approximately $5 billion for health care projects, more than $10 billion to improve school and postsecondary facilities, and about $11.4 billion to highways and transit projects. This plan was completed in 2008-2009 a year ahead of schedule. Projects committed under this plan include, the York–Spadina subway extension in Toronto, the Windsor–Detroit Gateway, and new hospitals and schools.

Figure 2: Age Distribution of Major Categories of Infrastructure Assets

Sources of data: Ministries of Education, Health and Long-Term Care, and Transportation



Note: The age of provincial highways (pavements) average only seven years and have therefore not been presented in the graph.

- *Building Together—Jobs & Prosperity for Ontarians, 2011*, is a 10-year plan that set out the government's priorities for infrastructure investments and provided a framework to guide future investments. The majority of planned investments were concentrated in the five ministries with the biggest capital spending (Transportation; Health and Long-Term Care; Education; Northern Development and Mines; and Training, Colleges and Universities). Investments consisted of a large number of previously approved projects and programs. Priorities identified in the plan included:
  - expanding and rehabilitating highways, bridges, border crossings, and other transportation infrastructure;
  - improving and expanding transit for commuters;
  - investing in elementary, secondary and post-secondary educational infrastructure;
  - investing in hospital expansions and redevelopments; and
  - supporting investments in rural communities.

1.1.1 Infrastructure Spending

In the last 10 years, Ontario's largest infrastructure investments have been in the transportation sector, followed by health and education. During this period, the province devoted 77% of its total infrastructure spending—which includes preserving existing assets, expansion of existing assets, and construction of new facilities—to these three sectors alone.

Over the last decade, major investments in the various sectors have included:

- more than $20 billion for transit projects, including $9.1 billion for GO Transit and $3.7 billion for transit in Toronto, Ottawa, and Waterloo;
- $18.8 billion to design, repair or build nearly 8,000 kilometres of roads and 950 bridges;
- more than $16 billion invested in the hospital sector, including more than 100 major hospital projects and another $2 billion for other health-care infrastructure such as community health centres and long-term-care facilities; and
- $12.7 billion to build 700 new schools and make major additions and renovations to more than 725 existing schools.

The province has provided an average of about $3 billion per year in infrastructure transfer payments over the last 10 years to organizations such as municipalities, universities, social service agencies, and long-term-care homes. **Figure 3** highlights the province's infrastructure spending in the last 10 years.

Figure 4 shows the estimated planned spending for the next 10 years. This includes:

- $55 billion to transportation for priority projects such as public transit, roads, bridges and highways;
- $27 billion to health care;
- $21 billion to education (schools and post-secondary institutions); and
- $21 billion in other (including some capital funding to municipalities).

Planned capital funding to municipalities totals almost $17.5 billion, allocated as follows: health care, $6.5 billion; roads and bridges, $1.2 billion; schools, $500 million; transit, $4 billion; and other, $5.2 billion.

Over the last ten years, the province has received $6 billion from the federal government through a variety of infrastructure initiatives, and will be undertaking negotiations with the newly elected federal government to jointly fund future projects and programs.

1. 2 Infrastructure Planning

Ontario's Treasury Board Secretariat (Secretariat) is the central agency responsible for co-ordinating, planning, analyzing, and providing recommendations to the government regarding the province's

Figure 3: Actual Infrastructure Spending by Sector, 2006–2015 ($ billion)

Source of data: Treasury Board Secretariat

Sector	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	Total
Transit	1.54	1.62	1.86	1.07	1.72	1.74	2.30	2.38	2.49	2.78	**19.50**
Highways, Roads and Bridges	1.73	1.50	2.16	1.79	2.51	2.69	2.45	2.80	2.37	3.10	**23.10**
Hospitals and Other Health Care	0.46	0.56	1.34	2.52	2.86	3.06	3.04	4.14	3.22	3.57	**24.77**
Schools and Postsecondary (Colleges, Universities)	1.52	1.81	2.32	1.69	2.00	2.16	2.37	2.18	2.24	2.35	**20.64**
Other (including some capital funding for municipalities*)	1.35	1.62	3.12	1.91	1.87	1.96	2.52	1.95	1.46	1.02	**18.78**
Stimulus Funding	–	–	–	–	1.62	3.60	–	–	–	–	**5.22**
Total	**6.60**	**7.11**	**10.80**	**8.98**	**12.58**	**15.21**	**12.68**	**13.45**	**11.78**	**12.82**	**112.01**

* Municipal infrastructure spending is also included in the various sectors.

Figure 4: Planned Infrastructure Spending by Sector, 2016–2025 ($ billion)

Source of data: Treasury Board Secretariat

Sector	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	Total
Transit	3.21	4.93	5.25	4.24	3.76	2.59	1.25	1.00	0.94	1.08	**28.25**
Highways, Roads and Bridges	3.34	3.00	3.41	3.28	2.96	2.57	2.23	2.13	2.06	1.96	**26.94**
Hospitals and Other Health Care	2.94	3.44	3.41	3.17	2.93	2.38	2.63	2.04	1.88	1.89	**26.71**
Schools and Postsecondary (Colleges and Universities)	2.52	2.73	2.29	2.09	1.95	1.91	1.90	1.90	1.89	1.90	**21.08**
Other (including some capital funding for municipalities*)	1.86	1.82	1.81	2.24	2.30	2.22	2.10	2.11	2.24	2.18	**20.88**
Total	**13.87**	**15.92**	**16.17**	**15.02**	**13.90**	**11.67**	**10.11**	**9.18**	**9.01**	**9.01**	**123.86**

* Planned funding for municipal infrastructure totals almost $17.5 billion, allocated as follows: health-care, $6.5 billion; roads and bridges, $1.2 billion; schools, $500 million; transit, $4 billion; and other, $5.2 billion

infrastructure investments on assets owned by the Province, and broader-public-sector organizations. It also makes recommendations on capital transfers to the various recipients. The Secretariat's responsibilities include:

- co-ordinating infrastructure planning across the provincial government;
- providing fiscal, economic and policy analysis to support the infrastructure-planning process;
- providing capital-expenditure information to the Ministry of Finance for inclusion in the provincial Budget; and
- monitoring capital expenditures.

The Secretariat's infrastructure-planning activities are carried out primarily by the Capital Planning Division (Division), which had 67 full-time employees and expenditures of $6.1 million in the fiscal year ended March 31, 2015. (Prior to September 2014, the Division reported to the former Ministry of Infrastructure). The Division consists of a research and analytics group, a policy co-ordination group, and analysts grouped by sectors that are each responsible for a cluster of ministries.

Ministries are responsible for assets in their respective portfolios and the Ministry of Economic Development, Employment and Infrastructure is responsible for the development of the province's long-term infrastructure plan. The **Appendix** shows the key parties involved with infrastructure planning.

1.2.1 Annual Planning Process

At the beginning of the annual planning process in the fall, the Secretariat sends instructions to ministries for the coming fiscal year to guide them in preparing funding submissions, and to outline any changes to the reporting requirements.

In addition to high-level 10-year outlines of their infrastructure strategy and asset-management plans, ministries must submit details about any major projects and programs, and explanations for any changes to previously approved program or project funding.

A ministry's submission incorporates the funding requests the ministry has received from the broader-public-sector entities that it oversees. After it has reviewed and analysed the requests, the Ministry of Education, for example, includes in its overall submission a province-wide analysis of the renewal needs and major capital needs of all school boards. The Secretariat analyzes the ministries' overall funding requests and makes recommendations to the Treasury Board/Management Board of Cabinet (Treasury Board), which issues final decisions. The Treasury Board usually approves the Secretariat's funding recommendations.

1.2.2 Ministries to Plan within Funding Allocations

Along with instructions from the Secretariat, ministries are also given their preliminary operating and capital funding allocations, developed by the Secretariat in collaboration with the Ministry of Finance.

A ministry's approved 10-year plan from the previous year serves as the starting point for the current year's allocation, and adjustments are made to reflect changes to planned expenditures. In determining a ministry's annual funding allocation, the Secretariat typically makes the following adjustments to the previous year's approved funding amount:

- It extends the planning horizon by one year by replacing the current year's allocation with the forecasted allocation for the 10th year.
- It adds any decisions made by the Treasury Board during the year impacting the funding allocation.
- It adjusts for inter-ministry transfers when services are shifted from one ministry to another.

Ministries are expected to plan their expenditures within these allocations, although they can usually ask for adjustments to reflect additional costs or savings.

The infrastructure plans and related schedules are typically submitted to the Secretariat in late November or early December. Secretariat analysts examine them and make recommendations to the Treasury Board, which issues its decisions in February, ahead of the spring provincial budget.

Ministries are required on a quarterly basis to report on their progress and any risks they face in managing their allocations. They must also update their plans to ensure adherence to their approved 10-year allocations, and provide a projection of year-end financial performance.

This data is submitted to the Secretariat and reviewed by the same analysts who examined the initial submissions to ensure that ministries are on track financially with their plans, and that they have adequately addressed any material deviations from those plans.

Figure 5 illustrates the infrastructure-planning process.

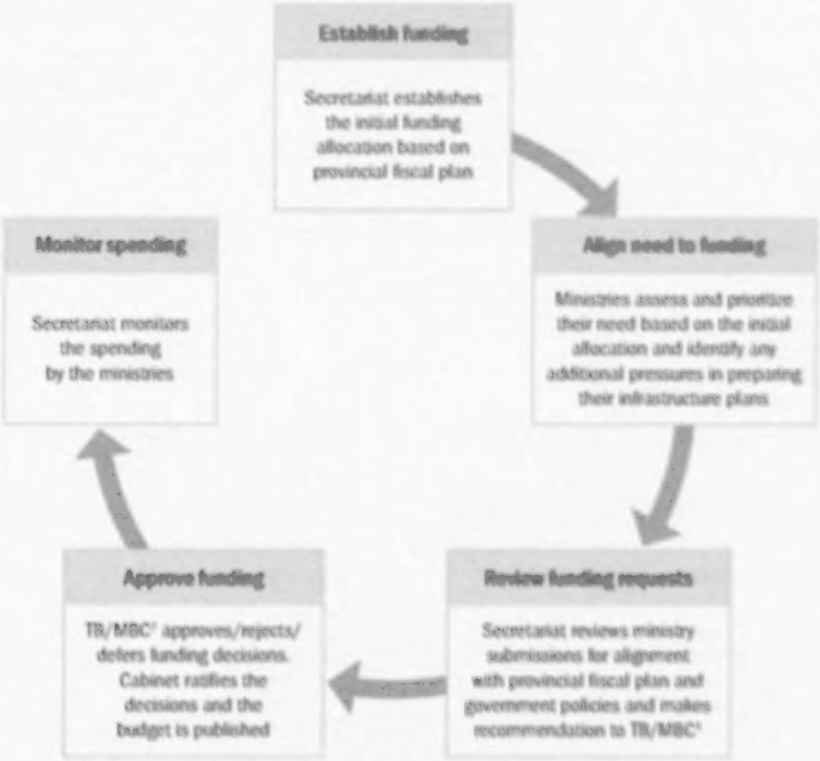
1.2.3 Infrastructure Asset Management Framework

In 2008, the government developed an Infrastructure Asset Management Framework (Framework) to guide the stewardship of all infrastructure assets owned, managed or funded by the province. The Framework describes standard practices, processes and tools, with specific guidance on performance measures, asset inventories, condition assessment and valuation, and asset-management plans.

The principles for asset management identified under the Framework form the foundation for the *Infrastructure for Jobs and Prosperity Act, 2015* (Act), passed in June 2015. Upon proclamation (no

Figure 5: Infrastructure Planning Process

Source of data: Treasury Board Secretariat


Establish funding
Secretariat establishes the initial funding allocation based on provincial fiscal plan
Align need to funding
Ministries assess and prioritize their need based on the initial allocation and identify any additional pressures in preparing their infrastructure plans
Review funding requests
Secretariat reviews ministry submissions for alignment with provincial fiscal plan and government policies and makes recommendation to TB/MBC²
Approve funding
TB/MBC² approves/rejects/defers funding decisions. Cabinet ratifies the decisions and the budget is published
Monitor spending
Secretariat monitors the spending by the ministries

1. In some circumstances, submissions may be received and decisions made throughout the year, under the same principles described.
2. TB/MBC: Treasury Board/Management Board of Cabinet

set date at the time of the audit), the Act would require that:

- the Minister of Economic Development, Employment and Infrastructure periodically develops a long-term plan that includes a description of the current state of assets wholly or partly owned by the government, a description of the government's anticipated infrastructure needs for at least the next 10 years, and a strategy to meet those needs;
- the first long-term plan be tabled within three years of the Act being proclaimed, and subsequent plans at least every five years thereafter;
- each long-term plan be made public;
- the government and broader-public-sector entities consider specific principles, including demographic and economic trends in Ontario, and take into account any applicable budgets or fiscal plans and clearly identified infrastructure priorities, in making infrastructure decisions; and
- broader-public-sector entities prepare infrastructure asset-management plans.

The Act also establishes criteria the Government must consider when prioritizing proposed new infrastructure projects. As the Act has not yet been proclaimed, there has not been an opportunity for its provisions to have an impact on infrastructure planning.

1.2.4 Infrastructure Delivery Options

In 2005, the province created Infrastructure Ontario as an agency of what is now the Ministry of Economic Development, Employment and Infrastructure. Infrastructure Ontario's mission is to deliver large public-sector projects through Alternative Financing and Procurement (AFP) arrangements, the form of public-private partnerships most frequently used in Ontario.

Under AFP, provincial ministries, agencies or broader-public-sector entities establish the scope and purpose of a project, and a private-sector contractor then finances and builds the project (and sometimes also operates and/or maintains it for up to 30 years after completion). The province pays for these projects over the term of the contracts.

The government has said AFPs are a more cost-effective way to deliver large complex infrastructure projects because they transfer the risks of cost overruns and project delays from the province to the private sector.

Infrastructure Ontario assesses the feasibility of using AFP for projects that have received planning approval from the Treasury Board and are valued at more than $100 million ($50 million prior to 2015). It then recommends whether to use an AFP based on an initial assessment of the value for money provided by this approach, taking into consideration such factors as the size and complexity of a project.

As of September 2015, Infrastructure Ontario had been involved in the delivery of over 80 AFP infrastructure projects with about $5 billion in capital construction costs across various sectors, including health, justice and transportation.

In 2014, we issued a report on Infrastructure Ontario's delivery of major capital projects using the AFP approach. The report, titled Infrastructure Ontario – Alternative Financing and Procurement, is included in our *2014 Annual Report*.

2.0 Audit Objective and Scope

The objective of our audit was to assess and report on whether the province's infrastructure-planning process ensured that infrastructure projects are prioritized based on need, and whether existing assets are maintained and renewed in accordance with sound asset-management principles.

A significant portion of our work was conducted at the office of the Treasury Board Secretariat (Secretariat) in Toronto, where we reviewed the infrastructure plans and related documents submitted by ministries, and analyzed information prepared by the Secretariat.

We interviewed personnel responsible for submission or assessment of infrastructure plans at both the Secretariat and five ministries, including three with the largest infrastructure spending and highest-value assets – Health and Long-Term Care, Education, and Transportation.

In these three ministries, we also reviewed business cases submitted by broader public-sector entities to the ministries that oversee them and examined their respective processes for assessing need and selecting projects, and for monitoring capital projects in development. We also reviewed provincial budgets and the government's significant infrastructure plans to identify major commitments made by the province and whether approved capital funding is in alignment with these commitments.

In addition, we met with industry associations and researched how other jurisdictions plan for infrastructure.

3.0 Summary

Proper infrastructure planning is necessary to ensure infrastructure needs are identified and existing infrastructure is adequately maintained and renewed for public use. Such planning must take into account the benefits of infrastructure investment, the risks to the public when needed facilities are not built or are allowed to deteriorate, and the resources required to meet future demand.

Ministries perform considerable work in establishing their own priorities and the government essentially allocates infrastructure funds to ministries based on a stand-alone historical basis. However, this may not result in the government allocating capital funding based on the current most urgent needs in the province. As such, ministries set priorities internally, rather than weighting overall priorities for the province as a whole.

Two-thirds of funding is planned to go toward expansion (building new assets) and one-third is planned to go toward repairs and renewals of existing facilities—even though analysis conducted by the Secretariat has determined that this allocation should be the reverse in order to adequately maintain and renew existing public infrastructure.

We noted that there are no guidelines for the desired condition at which facilities should be maintained in each sector, and there is no consistency among ministries on how to measure the condition of asset classes such as highways, bridges, schools, and hospitals. This includes the type of assessment, frequency of assessment, and definition of assessment results, such as what is considered poor, fair, or good condition.

Ontario does not have a reliable estimate of its infrastructure deficit—the investment needed to rehabilitate existing assets to an "acceptable" condition—to better inform where spending should be directed. In particular, we noted the following:

- **The Secretariat does not have access to a reliable estimate of the condition of all provincial assets:** This information is needed to determine funding priorities. Currently there is no consistency among ministries on how to measure the condition of various asset classes, such as highways, bridges, schools and hospitals. This includes the definition of assessment results, such as what is considered poor, fair, or good condition. As a result, ministry information on asset condition is not calculated consistently, which makes it difficult to enable comparisons when recommending where funding should be allocated.
- **Significant infrastructure investments needed to maintain Ontario's existing schools and hospitals, which current funding levels cannot meet, creating a backlog:** The Ministry of Education and the Ministry of Health and Long-term Care have each been conducting independent assessments over the last five years of their schools and hospitals. For schools, 80% of the assessments completed identified $14 billion of total renewal needs, requiring an investment of about $1.4 billion a year, based on an industry

average, to maintain the schools in a state of good repair. However, actual annual funding on a school year basis over the last five years has been $150 million a year, increasing to $250 million in 2014/15 and $500 million in 2015/16. Similarly, the assessment of hospital facilities identified $2.7 billion dollars of renewal needs, requiring annual funding of $392 million to bring assets to what is considered good condition. However, since 2014/15 actual annual provincial funding has been $125 million and prior to that, since 2010/11, only $56 million was provided.

- **Ministries do not always have information on the entire inventory of assets that they fund:** For example, while the Ministry of Health and Long Term Care has good information about its hospitals, it lacks data about the condition of other health infrastructure it funds either directly or through transfer payments, including long term care homes, community health agencies and public health labs.

  Similarly, the Ministry of Transportation in its 2015/16 infrastructure plan noted that while its focus has been on maintaining roads and bridges, it also is responsible for maintaining other assets valued at close to $2.5 billion, including median and noise barriers, traffic signals, overhead signs and lighting, which also are in need of renewal funding. However, the Ministry has not yet determined the rehabilitation need and the funding required to maintain these assets.
- **Existing funding does not address significant pressures faced by ministries for new projects:** Just as investment is needed to maintain and improve the condition of existing assets, investment is also needed to expand the existing portfolio of assets, replace aged assets, and support ministry strategies and programs. At present, there are over 100,000 students in temporary accommodations (portables), and about 10% of schools are operating at over 120% capacity in the province. Although portables are needed to provide some flexibility to address changes in school capacity, existing funding is not sufficient to rehabilitate the existing portfolio and to replace these structures with more permanent accommodation, in some cases. About $2.6 billion worth of projects are submitted to the Ministry of Education by school boards for funding consideration every year. However, over the last five years, the Ministry has approved only about a third of the projects every year, since its annual funding envelope under the program has averaged only about $500 million on a school year basis. Similarly, the Ministry of Health and Long Term Care has received submissions for 37 major hospital projects totalling $11.9 billion dating back to 2005/06. These submissions were endorsed by Local Health Integration Networks as needed projects requiring funding. However, the Ministry did not put forward these projects for approval to Treasury Board as these initiatives could not be managed from within their existing budget allocation.
- **Funding allocations favour new projects over renewal of existing assets:** The province's guidelines say there should be an appropriate allocation of funds for asset renewal and construction of new projects to maintain existing service levels. An internal analysis conducted by the Secretariat noted that although two thirds of the province's capital investments should go towards renewing existing assets, the current 10 year capital plan allocates only about one third to renewal.

We also had the following concerns with respect to the Treasury Board Secretariat's (Secretariat) review of ministry submissions:

- **Prioritization of infrastructure needs across various sectors not done:** We noted the Secretariat generally evaluated each ministry on a stand alone basis, and no

comparison was done at an overall provincial level to ensure the most pressing needs receive top priority for funding.
- **Lack of analyst-based documentation to support funding recommendations:** Analysts prepared summary assessment notes, as well as briefing materials to the Treasury Board, which in many cases repeat the Ministry's rationale in its funding submission. Due to little documentation and high staff turnover (since 2012, more than 30 people, or 63% of total staff directly involved in assessing ministry submissions, left the Division), ministries said they had to continually educate new analysts about their asset portfolios. Ten ministries had new analysts assigned to them in each of the last three years.
- **Analysts' tools do not allow for substantive analysis:** We found that tools used by analysts (including the analysis checklist, prioritization template and a best practices guide) focused mainly on administrative matters, such as whether a submission is complete. They did not provide specific guidance to assess whether submissions align with provincial priorities.
- **The Secretariat does not know how well individual projects are managed:** In our review of the quarterly reports from the ministries to the Secretariat, we noted that information is generally reported at a program level only (with the exception of projects completed under the AFP model). That is, these reports do not provide details on individual projects within a program. The Secretariat relies on ministries to monitor project delivery. It becomes concerned only when ministries inform the Secretariat of project cost overruns that cannot be offset from other projects.

This report has six recommendations, containing nine actions, to address the findings noted during this audit.

OVERALL SECRETARIAT RESPONSE

The Treasury Board Secretariat (Secretariat) welcomes and supports the recommendations made by the Auditor General to improve the Province's infrastructure planning process.

The Secretariat provides financial and policy analysis to support the Treasury Board/Management Board of Cabinet in the development of the Province's 10-year infrastructure plan. The Secretariat works closely with its partners, including ministries who are accountable for managing and funding their assets, to support the prioritization of infrastructure investments while recognizing the government's commitment to fiscal balance and managing the Province's net debt.

Over the last decade, Ontario has invested more than $100 billion in public infrastructure and worked to advance asset management and long-term infrastructure planning including:
- In 2008, releasing an Asset Management Framework to guide the management of all provincial assets owned, managed or funded by the Province;
- In 2011, publishing Building Together, a policy framework to guide long-term infrastructure planning; and
- Starting in 2013-14, providing ministries with 10-year infrastructure allocations.

Work is underway to improve infrastructure planning, in line with the Auditor General's recommendations to advance asset management, reporting, and evidence-based prioritization efforts.

The Province's Program Review, Renewal and Transformation process looks across ministries to assess government programs and emphasizes the use of evidence to evaluate and prioritize infrastructure funding. It is an ongoing process to help manage resources in a way that is efficient, effective and sustainable.

To strengthen key project oversight, Treasury Board/Management Board of Cabinet issued a new Directive for Major Public Infrastructure Projects to clearly articulate the approval process for large infrastructure projects and require ministries to report quarterly on the status of major projects.

Additionally, upon proclamation, the Infrastructure for Jobs and Prosperity Act will require the government to table a long-term infrastructure plan that at a minimum will describe the current condition of all provincially-owned assets, the anticipated needs of these assets over the next ten years, and strategies to meet these needs.

The Secretariat appreciates the efforts of the Office of the Auditor General and will continue to work with its partners to invest more than $130 billion over 10 years to renew and expand Ontario's public infrastructure.

4.0 Detailed Audit Observations

4.1 Complete, Reliable Information Needed for Effective Capital Planning

As discussed in more detail in the following subsections, the government has been unable to accurately determine its current or projected infrastructure deficit—the investment needed to rehabilitate existing infrastructure assets to an "acceptable" level—within its entire portfolio of assets. It needs to do this in order to direct funding to areas of greatest need when existing capital funding levels cannot meet all needs. As well, this becomes more difficult because there are no provincial guidelines or benchmarks on the desired condition at which assets within various sectors should be maintained.

In two of the three Ministries that we examined in detail—the Ministry of Education and the Ministry of Health and Long-Term Care—a significant backlog of renewal needs has been identified for Ontario schools and hospitals. However, existing capital funding levels cannot keep up with this backlog. This makes the need for effective planning and prioritizing to allocate limited funding that much more important.

4.1.1 Ministries Not Measuring the Condition of Assets in a Consistent Manner

At present, there is no reliable estimate of the overall infrastructure deficit within the government's portfolio of assets. The main reason is that there is no agreement, and therefore guidelines among ministries on how to consistently measure and compare the conditions of various asset classes, such as highways, bridges, schools and hospitals. As a result, the ministry information on asset condition that is provided each year to the Secretariat through infrastructure plans is inconsistent between ministries. This includes the type of assessment, frequency of assessment, and definition of assessment results, such as what is considered poor, fair, or good condition. This inconsistency makes it more difficult to determine which assets are in most need of funding in order to be maintained at defined acceptable conditions.

In addition, as noted in **Section 1.2.3**, the government released an Infrastructure Asset Management Framework (Framework) in 2008 to guide the management of all infrastructure assets owned, managed or funded by the province. Although following the Framework is not mandatory, it provides specific guidance on asset condition assessments and valuation. However, the Secretariat does not monitor whether ministries use the Framework.

Assumptions Vary in Calculating Asset Condition

Ministries generally use the Facility Condition Index (FCI), an industry-standard measure of a building's condition at a given time, to determine if their assets are in good, fair or poor condition. The FCI is calculated by combining the total cost of any needed or outstanding repairs with the renewal or upgrade requirements of the building, divided by the current replacement value. In essence, it is the ratio of "repair needs" to "replacement value," expressed as a percentage. The higher the FCI, the greater the renewal need.

However, ministries make different assumptions in estimating their repair needs. In its 2015/16 submission to the Secretariat, for example, the Ministry of Education identified an FCI of about 36% for its schools overall by including its current repair backlog and five years of future repair needs in its calculation. In contrast, the Ministry of Health and Long-Term Care included its current repair backlog and only two years of repair needs in its calculation, and arrived at an average FCI of 23% for its facilities. Because these two ministries assessed the conditions of their respective assets differently, it is difficult to determine which of them has a higher-priority need overall.

For highways and bridges, the Ministry of Transportation takes a different approach in assessing their condition. It classifies its highway pavements and bridges as being in good, fair, and poor condition. Pavements and bridges are considered in good condition if they will not require any rehabilitation work for six or more years. Based on this assessment, the Ministry has classified 77% of the pavements and 83% of bridges that they are responsible for to be in good condition.

In comparison, Alberta uses a government-wide standardized FCI as a common measure to enable ministries to compare condition ratings across facility types (schools, post-secondary institutions, government-owned buildings and health-care facilities). It calculates its FCI using current backlogs and five years of future repair needs.

Alberta has targets for the percentage of facilities to be in good, fair and poor condition for the different sectors, and it reports the actual percentage in each category publicly each year, along with the progress made towards achieving each sector's targets. It uses the following definitions:

- Good—the facility's FCI is less than 15%, is adequate for intended use and expected to provide continued service life with average maintenance.
- Fair—facilities with an FCI between 15% and 40%, inclusive, have aging components nearing the end of their lifecycle and require additional expenditures for renewal or refurbishing.
- Poor—facilities with an FCI greater than 40% require upgrading to comply with minimum codes or standards, and deterioration has reached the point where major repairs or replacement are necessary.

4.1.2 Some Ministries Lack Necessary Resources to Identify Needs

The infrastructure planning process and information-submission requirements are the same for all ministries, regardless of the size of their infrastructure portfolios and projects. This can make it difficult for some smaller ministries to meet the requirements.

In 2014/15, for example, the Ministry of Tourism, Culture and Sport (Ministry) requested $14.6 million to address imminent health and safety issues including failures in roofing, fire alarm systems, and emergency power and lighting systems that it identified as the most pressing in its asset portfolio. However, the Secretariat recommended deferring the request until the Ministry could supply more detailed information, including a long-term strategy for repairs and rehabilitation.

In its submission the following year, the Ministry provided some additional information, but was unable to meet all of the Secretariat's information requirements. As a result, it was once again deferred, which meant that critical needs identified by the Ministry two years ago are still unfunded.

Similarly, the estimated ministry-wide renewal costs provided by the Ministry of the Attorney General (MAG) in its 2014/15 infrastructure plan were simply extrapolations from a pilot study done at the

Newmarket courthouse, because actual condition information for individual courthouses had not been obtained.

MAG has said that, since many of its courthouses are older and in worse condition than Newmarket, the costs may well be higher. It needs to conduct a thorough assessment of its entire portfolio to gather comprehensive and accurate information about its renewal needs. The Ministry has since expanded on the pilot project to complete additional assessments of facilities in collaboration with Infrastructure Ontario.

As the central agency responsible for co-ordinating planning and analyzing the province's infrastructure, the Secretariat can provide tools which some ministries can use to identify their infrastructure needs, specifically those ministries that currently lack the capacity to do so.

Specific examples include:

- The Ministry of Education noted it had to develop a costing adjustment to capture the differences in expenses associated with construction costs in various locations within the province. It noted that the Secretariat could have helped develop this tool, which many other ministries could use to better estimate project costs.
- Four ministries examined during the audit separately retained the same company to perform an assessment of the condition of their facilities. The company is not a vendor of record for the Ontario Public Service, which means the four ministries each had to enter into separate contracts and arrangements with this company. The province could have potentially saved money and facilitated a standard condition assessment process across ministries by coordinating a single contract to cover services for several ministries.

4.1.3 Significant Infrastructure Investments Needed to Maintain Ontario's Existing Schools and Hospitals

About half of Ontario's public infrastructure is managed by broader public-sector-entities such as hospitals, schools and colleges. The ministries responsible for these entities do not directly monitor the use of these assets and are not involved in their management. Instead, they rely on the entities to self-identify their infrastructure needs and manage their portfolios to meet the province's public service mandate.

The Ministry of Education, for example, relies on 72 different school boards, which operate almost 5,000 elementary and secondary schools, while the Ministry of Health and Long-Term Care relies on 14 Local Health Integrated Networks to oversee broader system planning for hospitals and other health-care facilities.

The detailed planning and identification of need rests with these entities, and the ministries depend on them to evaluate their infrastructure needs and to submit funding requests accordingly.

In 2011, to quantify the current backlog of renewal needs for all Ontario schools, the Ministry of Education hired a company specializing in asset management to conduct condition assessments on all schools five years and older. The assessments are being done over a five year period covering about 20% of the schools per year. The assessors visit each school and conduct a non-invasive inspection of all major building components and systems (for example, basement, foundation, and HVAC systems). School portables, third-party leased facilities, equipment and furnishings, maintenance shops and additional administrative buildings are not assessed as part of this exercise. Currently, with 80% of the schools assessed, the Ministry is reporting a total renewal need of $14 billion, $1.7 billion deemed as critical and urgent (i.e., renewal work that should not be postponed due to risk of imminent failure). An investment of about $1.4 billion per year based on an industry average of 2.5% of the $55 billion replacement value is estimated to be required to maintain the schools in a state of good repair. But actual annual funding in the last five years had been $150 million a year, increasing to $250 million in 2014/15 and $500 million in 2015/16. The Ministry allocates this funding to school boards based on a percentage calculated by dividing the school boards' individual needs by the total renewal need of $14 billion. Distributing the funding in proportion to individual school boards' critical needs should be considered to at least ensure that the critical needs are met.

The assessments made during the first year of the condition assessment exercise are now five years old. Therefore, any further deterioration or repairs that might have been undertaken on those schools over this period have not been captured.

School boards can raise additional funds to address deferred maintenance backlog by selling schools with low enrolment. The Ministry of Education recently declared (June 2015) to school boards that 80% of the proceeds from the sale of schools must be put toward the renewal and maintenance of assets. However, competing interests between trustees to keep schools open in their own wards sometimes preclude boards from effectively utilizing this strategy. This was cited as a concern in a January 2015 report commissioned by the Minister of Education. The report, an independent review of the performance of the province's largest school board, conducted by the former registrar of the Ontario College of Teachers, noted that 76 elementary schools and 55 secondary schools within the board were operating under 60% capacity. However, because trustees were unwilling to sell schools with low enrolment in their wards, the board continued to operate these schools at a huge expense.

The Ministry of Health and Long-Term Care hired the same company as the Ministry of Education to complete assessments of all hospitals. The first cycle of assessments was completed in 2011, and included an evaluation of all public hospitals including over 820 buildings in 242 hospital sites for each hospital's major building components. The hospital assessments will be done on a four-year rolling basis (25% of hospitals per year). These technical assessments of hospital facilities helped identify $2.7 billion dollars of renewal needs considered eligible for ministry funding, requiring annual funding of $392 million to maintain assets in a state of what the Ministry considers good condition. Actual annual funding, however, has been $125 million since 2014/15 and prior to this it was $56 million.

Over the last number of years school boards and hospitals have had to use operating funds to fund capital. Since 2010/11, school boards have used $243.4 million of accumulated surpluses for capital purposes, or an average of $60.8 million a year. Similarly, in the last five years, hospitals spent on average $45 million a year of operating funds on capital and other funding needs.

4.1.4 Some Ministries Lack Information on Their Full Inventory of Assets

Although ministries have undertaken assessments on their major assets, the ministries do not always have information on the entire inventory of assets that they fund. For example, while the Ministry of Health and Long-Term Care has good information about its hospitals, it lacks data about the asset stock and condition of other health infrastructure it funds either directly or through transfer payments, including long-term-care homes, community health agencies and public-health labs. This makes it difficult to determine the sector's total renewal funding needs in the future.

This Ministry also has limited information on the facility-renewal needs of community and Aboriginal health centres, or community-based mental health and addictions programs. Information on facility renewal needs of community service providers is only available to the Ministry when project proposals are received. Based on these proposals, in 2014/15 it requested an increase of $444 million over 10 years to establish a new program to fund capital renewal projects for these community health-service providers. The Secretariat recommended to the Treasury Board that the Ministry not receive the full amount, but rather get $90 million to begin renewal and provide the Ministry with additional funding in the future once it has better assessed its renewal needs in the sector.

Similarly, the Ministry of Transportation in its 2015/16 infrastructure plan noted that while its focus has been on maintaining roads and bridges, it also maintains other assets valued at close to $2.5 billion, including median and noise barriers, traffic signals, overhead signs and lighting, which also are in need of renewal funding. However, the Ministry has not yet determined the rehabilitation need and the funding required to maintain these assets.

RECOMMENDATION 1

To better identify, measure and quantify the province's infrastructure investment needs, the Treasury Board Secretariat, working with ministries, should:

- define how ministries should identify and measure the condition of all asset classes and determine how to assist those ministries that currently lack the capacity to do so;
- provide guidance to ministries on the desired condition at which to maintain infrastructure assets; and
- publicly report on the progress made in achieving targets set for the desired condition for the province's infrastructure.

SECRETARIAT RESPONSE

The Treasury Board Secretariat agrees that effective asset management practices are an essential part of long-term infrastructure planning in Ontario.

As noted in the report, upon proclamation, the Infrastructure for Jobs and Prosperity Act, 2015 would require the government to make public a long-term infrastructure plan within three years, and subsequent plans at least every five years thereafter. These plans would be required to include, at minimum, a description of provincial infrastructure assets (as described in the Act) that includes an assessment of age, value and condition, an estimate of the government's anticipated infrastructure needs for at least the next ten years and a strategy to meet those needs. The Ministry of Economic Development, Employment and Infrastructure will work with the Secretariat and ministries to develop this long-term infrastructure plan and leverage the information provided by ministries as part of their Infrastructure Plans.

When developing Infrastructure Plans, the Secretariat will remind ministries to adhere to the Infrastructure Asset Management Framework, released in 2008, that provides standardized definitions and methodologies to measure the condition of provincial assets across different classes and categories.

4.2 Existing Funding does not Address Significant Pressures Faced by Ministries for New Projects

In addition to the need to maintain the condition of existing assets, there is also a need to invest in new assets to meet growing program demands, replace aged assets that no longer meet safety standards or are at over-capacity, and to support new strategies and programs.

In the following sub-sections we discuss some significant needs highlighted by the Ministry of Education and the Ministry of Health and Long-term Care to expand their existing schools and hospitals and the impact of existing funding levels that are unable to meet these needs. This highlights the importance of prioritization of infrastructure needs not only at the individual Ministry level, but also on the provincial level overall.

4.2.1 Need to Increase Student Accommodation Exceeds Available Funding

At present there are over 100,000 students in temporary accommodations (e.g., portables) and about 10% of schools are operating at over 120% capacity. Although portables are needed to provide some flexibility to address changes in school capacity, existing funding is not sufficient to rehabilitate the existing portfolio and to replace these structures with permanent accommodation, in some cases. The Ministry of Education's Capital Priorities Program (Program) funds new permanent student accommodations for areas with existing overcrowding in schools or projected overcrowding due to residential growth. Specifically, the program supports the building of new schools, building additions or undertaking major renovations of existing schools where projects are needed within three years.

In an effort to reduce the number of students currently housed in temporary accommodations and ease the overcrowding in schools, under this Program school boards identify their highest and most urgent capital priorities and submit the associated business cases to the Ministry for consideration for funding approval. The Ministry has limited the maximum number of projects that each school board can submit to eight projects.

In evaluating the business cases submitted by school boards, the Ministry of Education focuses on a number of criteria including:

- the number of students without suitable accommodations;
- the number of students housed in portables or holding schools;
- joint school opportunities; and
- appropriateness, cost and viability of the proposed project.

Annually about $2.6 billion worth of projects are submitted to the ministry by school boards for funding consideration. However, over the last five years the Ministry annually has approved about a third of these projects, since its annual funding envelop under the Program has averaged only about $500 million on a school year basis. Requests are usually re-submitted in future years for projects that are not approved.

4.2.2 Need for Major Hospital Projects

The Ministry of Health and Long-term Care did not put forward a number of new projects endorsed by Local Health Integration Networks (LHINs) totalling $11.9 billion dating back to 2005/06, as these initiatives could not be managed from within their existing budget allocation. Some of these projects addressed potential health and safety needs at hospitals. In addition, in their 2015/16 instructions to Ministries, the Treasury Board Secretariat instructed ministries not to request additional funding for new infrastructure initiatives.

Planning for expansion projects at the Ministry of Health and Long-Term Care begins with the submission of project proposals by a hospital or other health service provider to its Local Health Integration Network (LHIN) for endorsement. The Ministry will not consider funding or putting projects forward for approval by Treasury Board without the endorsement of the LHIN. In order to receive the endorsement, a proposed project must demonstrate that it addresses a current need, aligns with local and provincial health system priorities as determined by current programs or health plans and agreements, identifies options for program or service delivery, and addresses projected demographic and utilization needs over a twenty year period. Once endorsed by a LHIN, a proposed project is prioritized among other projects and initiatives for potential funding approval.

As of the 2015/16 fiscal year, the Ministry of Health and Long-Term Care received funding requests for 37 major hospital projects totalling $11.9 billion endorsed by LHINs. For example:

- In order to improve patient access and care, a hospital put forward an urgent need to redevelop ambulatory, clinical, diagnostic and therapeutic services and support services due to infection prevention concerns and capacity issues, stating the facility does not meet ideal standards.

- Construction of a replacement building to address "gross" structural and functional inadequacies at another hospital site and to accommodate 96 new beds as well as the expansion in diagnostics and relocation of some ambulatory programs.
- Redeveloping the surgical suite of a hospital to address deficiencies such as a lack of segregation of traffic flow, inadequate storage space, operating rooms which are too small to accommodate current technology, and insufficient space in the post-anaesthesia care unit and surgical day care to accommodate current levels of activity.
- Construction of two new buildings at an existing hospital to address multi-bed wards as the layout is not considered conducive to safety, infection control, confidentiality and accessibility.

4.3 Funding Allocations Not Always Based on Need

4.3.1 Secretariat Focuses on Provincial Budget Rather Than Service Levels

Our review found that allocation of infrastructure funding is based on historical levels rather than actual need. In determining a ministry's 10-year rolling capital funding allocation, the Treasury Board Secretariat uses previously allocated amounts without carrying out a current needs assessment from individual ministries to examine their actual requirements and those of the province as a whole.

As discussed in **Section 1.0**, the Secretariat develops preliminary funding allocations for each ministry based on previous years' funding levels. Ministries are then presented with these allocations at the beginning of the planning process and told to fit their infrastructure priorities within them despite their need.

The Secretariat has tended to focus more on ensuring that capital spending remains within the provincial budget rather than on ensuring that ministries meet specific levels of service or performance. For instance, in the 2015/16 planning instructions, ministries were told not to ask for additional funding for new infrastructure initiatives beyond what they were allocated because of the province's current budgetary constraints.

As part of their infrastructure plans, ministries are required to identify their potential infrastructure gap—the difference between their actual infrastructure needs and the funding allocated—and identify strategies to bridge the gap. However, in our review of plans submitted by ministries, we noted the strategy was often to defer needs to future years.

RECOMMENDATION 2

The Treasury Board Secretariat should ensure that ministries put forward viable strategies that address bridging the gap between actual infrastructure needs and the funding allocated including options such as adjusting service levels, delivering the same service levels more efficiently, and internally realigning expenses.

SECRETARIAT RESPONSE

The Secretariat acknowledges the importance of ensuring ministries make investments to address priority needs in the areas of greatest benefit to the province. The Secretariat will continue to remind ministries to put forward viable strategies to meet infrastructure needs and support the sustainable delivery of infrastructure projects within the fiscal context of the Province.

Also, the Province's Program Review, Renewal and Transformation process was launched in 2015/16 to enhance multi-year planning and budgeting looking across ministries to assess government programs. Through this process, ministries are asked to review their programs for relevancy, effectiveness, efficiency and sustainability, and based on these assessments, identify opportunities to improve outcomes. The Program Review, Renewal and Transformation process will be reviewed annually to assess whether it has been effective or if changes are required.

4.3.2 More Funds Directed to New Projects Over Renewal Need

According to the Secretariat's Infrastructure Asset Management Framework, an appropriate balance between funding renewal (repair/rehabilitation or replacement of existing assets) and expansion (new projects) must be struck in order to minimize lifecycle costs, prolong the life of assets and, ultimately, achieve better service levels.

However, the Secretariat's internal analysis has noted that investments on the current portfolio of assets have historically been favoured over renewal, leading to substantial deferred maintenance; ongoing maintenance and renewal activities have typically been underfunded and piecemeal.

This trend of funding new infrastructure rather than maintaining and repairing existing assets is expected to continue into the future. Internal analysis conducted by the Secretariat suggests that, as of March 2015, two-thirds of the province's capital funding should go to renewing existing assets. However, the province's current 10-year capital plan for infrastructure spending proposed by the ministries has only about one-third of funding allocated to renewal, and the remaining two-thirds to new projects. Major programs and initiatives announced by the government are accounting for some of this disparity. They include: the introduction of full day kindergarten and recent investments in significant transit projects.

According to the Secretariat's internal analysis, an average annual investment of 5% needs to be spent on asset renewal annually. However, the Secretariat estimated that the "10-year capital plan only contains renewal investments of around 1.9% of current replacement value of the stock". In other words, the plan does not allocate enough funds for repair and maintenance to sustain the current stock of assets. **Figure 6** highlights the annual funding shortfall for infrastructure renewal in various sectors in the province.

RECOMMENDATION 3

The Treasury Board Secretariat should make use of all relevant and available ministry information such as the condition of assets and what is needed to meet target service levels in ensuring that funding allocations strike an appropriate balance between funding new projects versus funding repair/rehabilitation and replacement

Figure 6: Infrastructure Renewal Deficit by sector, 2014/15 ($ million)

Sources of data: Ministries of Education, Health and Long-Term Care, and Transportation

	Total Renewal Needed	Methodology for Optimal Funding	Optimal Annual Renewal Funding	Actual Annual Renewal Funding
Provincial Highways and Bridges	2,562	2%-4% x asset value	1,600-3,200	1,127
Education	14,000	2.5% x asset value	1,400*	250*
Health	2,700	estimated based on actual assessment data collected to bring assets to a state of good condition	392	125

* On a school-year basis

of existing assets to minimize lifecycle costs and prolong the life of assets.

SECRETARIAT RESPONSE

The Secretariat is taking action to advance the use of evidence to inform infrastructure decision-making.

Building on previous planning processes and requirements, the Secretariat is asking ministries to provide detailed Infrastructure Plans through the 2016/17 Program Review, Renewal and Transformation process. Ministries are asked to include a summary inventory of their assets and a description of the differences between current and target service levels. Further, ministries are asked to provide a strategy to meet renewal and expansion needs based on long-term forecasts of service levels.

To support the prioritization of infrastructure investments, the Secretariat will continue to require an evidence-based business case from ministries to support changes to infrastructure funding.

The Secretariat acknowledges that outcome measurement across government could be improved. In 2015, the Centre of Excellence for Evidence-Based Decision Making Support was established to promote the use of performance indicators and program evaluation across government. An Evidence Based Decision-Making Framework is being developed to set standards and provide guidance for improved use of data and more rigorous analysis of planning options.

4.3.3 Projects Funded Outside Infrastructure Planning Process

Although the Secretariat is responsible for planning and analyzing the province's infrastructure investments, we noted that the government may choose to approve projects directly or choose to fund other government priorities.

For instance, as part of the Moving Ontario Forward regional infrastructure plan for the Greater Toronto and Hamilton area, the Ministry of Transportation was asked to submit directly to a committee of Cabinet (the Priorities and Planning Committee) transit projects for approval. In April/May 2015, the government committed $1.6 billion to fully fund a light-rail transit project in Mississauga and Brampton and $1 billion to fund the capital cost of the light rail transit project in Hamilton. The Secretariat had no explanation for the funding of these projects as it was not involved in the selection process.

Also, since 2003/04, the Ministry of the Attorney General has been directed by the government to reallocate $72 million from planned infrastructure spending to fund specific public-safety initiatives such as, resources to conduct a guns and gangs initiative, high security courtrooms, Human Rights Tribunal activities, and a justice delay reduction initiative. According to the 2014/15 submission that the Ministry provided to the Secretariat, this reallocation of funds has reduced the funds available for capital spending.

Another example of project approval outside of the planning process relates to an expansion project of a sports arena currently being negotiated between the Province and a municipality. This project had not been identified as a priority by the Ministry of Tourism, Culture and Sport (Ministry). However, the Ministry was instructed to report back on implementation plans for this project. At the time of our audit, the Ministry did not know which specific program areas would be impacted by the amount needed for the project.

RECOMMENDATION 4

To ensure the province makes the most effective infrastructure investments, the Treasury Board Secretariat should ensure that funding allocated to ministries is supported by an objective analysis of needs prioritized on a province-wide basis as well as by individual ministries.

SECRETARIAT RESPONSE

The Secretariat appreciates the report highlighting the value of using evidence to inform infrastructure investment decisions.

The Secretariat continues to develop tools and work with partner ministries to estimate infrastructure needs and benefits to the Province, particularly from an economic perspective. The division is collaborating with ministries to improve methodologies and gather data. This ongoing analysis will be used to help prioritize infrastructure investments at a high-level across government.

The Ministry of Economic Development, Employment and Infrastructure will be working with the Secretariat and ministries on infrastructure policy issues, including advancing the government's project assessment, coordination and prioritization efforts from an enterprise-wide perspective.

While the Secretariat provides recommendations to Treasury Board/Management Board of Cabinet for their decisions on infrastructure investments, there are other government committees that review and make recommendations to Cabinet on policies, programs and services within their respective areas of responsibility consistent with direction set by the government. Their approvals may include infrastructure, as it is a key priority of the government's economic plan. Ministries that have received these approvals are required to seek TB/MBC approval of related financial requirements in the context of the Province's fiscal plan.

4.4 Inadequate Review by Secretariat of Ministry Submissions

Teams of analysts and managers at the Secretariat along with other partners across central agencies such as, the Office of the Provincial Controller Division, review ministries' proposed infrastructure investment plans. In accordance with internal planning guidelines, and to support their recommendations to the Treasury Board, the analysts and managers determine if the proposed investments meet the following four key criteria:

- address imminent health or safety risks;
- generate long-term economic benefits;
- align with government policy objectives; and
- generate long-term return on investment or support transformational initiatives.

The following sections address the degree of review to which infrastructure plans are subject, the documentation relating to funding decisions, training of review staff, and the tools used to analyze ministry submissions to ensure they meet the above criteria.

4.4.1 Scope of Analysis Limited

The starting point of the Secretariat analysis is a review of the ministry infrastructure plans. However, as noted earlier, we found that plans generally contain only summary-level descriptions of infrastructure programs funded by the ministries; project-level information is only available for select projects as requested by the Treasury Board, or for large projects such as major highway expansion.

Upon submission of infrastructure proposals to the Secretariat, each ministry is generally evaluated on a standalone basis by its assigned analysts on how it intends to use its funding allocation. The ministries' use of its funding allocation is not weighted against priorities of other ministries that may be more pressing but are not funded.

This leads to the risk that the province is not optimally investing its limited infrastructure dollars. In its capacity as a central agency, the Secretariat is in the best position to evaluate and balance relative needs and priorities across ministries.

In addition, the Secretariat completes limited analysis of cases where ministries have to reallocate their existing resources to cover things like cost overruns. Such reallocations have no fiscal impact at the provincial level as the needed funding is offset from funding allocated toward a ministry's ten-year capital plan. They do, however, affect the cost and timing of project completion in the future.

4.4.2 Lack of Documentation Creates Knowledge Gaps

We noted a lack of consistent documentation to support recommendations by analysts to the Treasury Board for accepting, rejecting, or deferring a funding request. Analysts are not required to document their analyses; they prepare a summary assessment note outlining their recommendations along with briefing materials.

In addition, these analyses are primarily based on program-level information which is a rollup of individual project spending, rather than project-level details. In many cases, an assessment note simply restates the ministry's rationale in its funding submission.

Lack of documentation can be especially problematic when there is high staff turnover, as has been the case at the Secretariat.

High Turnover Rate at Secretariat

The average annual turnover rate we calculated at the Capital Planning Division since 2012 was 43% for analysts and 50% for managers of those who assessed ministry submissions. Moreover, during this same period, we calculated that 10 ministries experienced an average annual turnover rate of over 100% for analysts assigned to them. The Secretariat explained that staff that review ministry infrastructure submissions are privy to a wide array of information, and build significant personal networks, leading to employment opportunities elsewhere in the public service, Crown corporations, or educational institutions. Still, the lack of proper documentation leads to significant knowledge gaps when staff leave and to inefficiencies as new personnel have to become acquainted with the work of the people they replaced.

In one case, we had to interview a former employee to get an understanding of the files she had been responsible for, as no one at the Secretariat was able to respond to our questions about details of the files. The former employee also had to return to help the Secretariat with questions about her former portfolio of ministries.

Ministries we met with also said turnover at the Division required them to educate new Secretariat employees each year about their portfolio of assets.

In addition, much of the supplementary analysis supporting final assessment notes and briefing materials, are stored with the respective teams, rather than on a central server. This makes it difficult for the Secretariat to access information needed for timely decision making when analysts go on vacation or take jobs elsewhere.

When we asked for information related to the 2014/15 submission of the Ministry of Health and Long-Term Care, it took the Secretariat more than three months to provide us with its internal documentation. The Secretariat attributed the delay to the transition of a new manager and analyst on the file.

The lack of documentation and knowledge gaps is magnified by tight time constraints under which analysts work between receiving ministry submissions and meeting the deadline to submit their assessment notes and recommendations to the Treasury Board.

4.4.3 Gaps Cited in Training for Effective Review of Funding Submissions

The Secretariat provides training to its analysts in many areas related to infrastructure in Ontario, including capital accounting, Alternative Financing and Procurement (AFP), asset management, the budget process, capital financial concepts, and the Program Review, Renewal and Transformation process.

The results of an internal survey of 56 analysts with a response rate of 55% conducted in 2013 indicated that many analysts were uncomfortable with various aspects of the process used to analyze ministry submissions, and that they wanted more training and standardization.

Areas of particular concern (and the percentage of analysts reporting little or no comfort with each in brackets) included:

- estimating the impact of ministry plans on the government's capital borrowing needs and debt (62%);
- interpreting consolidation worksheets, such as summary spreadsheets (46%);
- understanding the AFP model and evaluating its impacts on the capital plan (45%); and
- reviewing financial impacts of requests on ministry expenditure estimates (29%).

In 2013 and 2014, the Secretariat offered additional training to analysts in these areas of concern. Although analysts were asked to provide feedback at the end of the training, as of August 2015, the Secretariat had not surveyed them again to determine how effective the additional training had been, or whether more was needed.

4.4.4 Analyst Tools Do Not Allow for Substantive Analysis

In addition to templates provided to analysts for assessment notes, tools that analysts use to assess ministry proposals include an analysis checklist, a prioritization scoring template and a best practices guide. However, in our review of these tools, we noted the following:

- The checklists do not specifically address how to support recommendations to the Treasury Board by ensuring that individual funding requests meet the Secretariat's criteria. The analyst checklists focus on administrative matters such as ensuring that documentation submitted by ministries is complete and that the documents cross reference one another.
- The Secretariat developed a best practices guide for analysts, but, as with the checklists, the guide contains no specific direction as to what analysts must look for to determine whether proposed infrastructure projects meet Secretariat criteria. This guide also focuses on administrative matters, such as how to complete the necessary forms and worksheets when assessing a funding request.
- The Secretariat has developed a scoring template to rank the priority of funding requests based on the four assessment criteria identified earlier. However, we found that analysts used the template only as a reference, and never actually completed it.

There is an analytics group within the Secretariat that can provide additional technical support to analysts on macro level details about infrastructure need based on external geographic and demographic data. However, we noted that analysts had little interaction with this group regarding specific infrastructure submissions, and did not use its expertise to confirm that their recommendations to the Treasury Board aligned with overall provincial infrastructure needs.

RECOMMENDATION 5

To ensure an appropriate review of ministries' proposed infrastructure investment plans, the Treasury Board Secretariat should:

- ensure that proper documentation of analysts' work is completed and made centrally accessible and provide the training necessary to address knowledge gaps; and
- amend the tools that analysts currently use to assess ministry proposals to better enable them to clearly determine whether key criteria have been satisfied by a project proposal, and train all analysts in the consistent use of these tools.

SECRETARIAT RESPONSE

The Secretariat is committed to continuous improvement and welcomes the Auditor General's recommendation to strengthen analytical support.

Currently, all final drafts of briefing materials are stored in a central network and financial information is accessible through an integrated business application. Building off engagement surveys undertaken and existing training materials available to staff, the Secretariat will continue to improve consistency in documentation and training and ensure information is centrally accessible. The Secretariat is working to strengthen business case development and requirements, focusing on risk and financial analysis, for ministries when they make submissions to Treasury Board / Management Board of Cabinet.

The Secretariat will assess the tools it provides to analysts to ensure the tools support evaluation of ministry requests against communicated requirements.

4.5 Insufficient Monitoring of Infrastructure Spending

Ministries are required on a quarterly basis to:

- assess and report to the Secretariat on progress and risks against their funding allocations;
- update their plans to ensure adherence to their approved 10-year allocations; and
- provide a projection of year-end financial performance on their infrastructure spending to the Secretariat.

The objective of this reporting is to identify areas of potential savings and cost pressures so that each ministry can manage its planned programs and projects within its funding allocation and take action when needed. Ministries are expected to find the additional amounts they need within their allocations before asking the Treasury Board for more funding. The role of the Secretariat is to ensure that capital spending remains within the allocations provided.

In our review of the quarterly reports from the ministries to the Secretariat, we noted that information is generally reported at a program level only. That is, these reports do not provide details on individual projects within a program (for example Full Day Kindergarten) to allow for effective monitoring; ministries report project-level details only when Treasury Board specifically asks for it.

The Secretariat does not maintain a list of approved individual infrastructure projects in the province, nor does it track the progress of these projects, with the exception of those delivered under the AFP model. It relies on ministries to monitor project delivery. It becomes concerned only when ministries inform Treasury Board of project cost overruns that cannot be offset from other projects.

All the ministries we visited had processes in place to monitor the status of their ongoing projects. However, the ministries' focus is on ensuring that project costs remain within the allocated funding. When cost overruns are experienced on projects, including those managed by the broader public sector entities, the ministries try and manage these overruns by either reducing the scope of the project or by identifying other sources of funding, which may entail reallocating funds from other ministry programs or projects where it is permitted to do so.

In the three ministries that we examined in detail we asked for the status of existing projects currently under construction or that had been completed within the last five years.

At the Ministry of Health and Long-term Care, the final settlement amount had not been determined for many completed projects. But for those projects where the final settlement had been determined we did not see significant overruns between the initial approved funding and the actual spent.

At the Ministry of Education all projects currently underway or completed within the last five years had a spent-to-date amount. But again, we did not note any that had significantly exceeded the amount initially approved for the project.

At the Ministry of Transportation, 39 highway expansion projects completed in the last five years, totalling about $2 billion had cost overruns totalling $121 million or about 6% over the initial budgeted amount. The Ministry managed these cost overruns from within its overall capital allocation.

RECOMMENDATION 6

To ensure adequate monitoring of infrastructure investments in the province, the Treasury Board Secretariat should require ministries to report information on project cost overruns and delays to inform future decisions and to monitor the status of significant infrastructure projects under way in the province.

SECRETARIAT RESPONSE

The Secretariat acknowledges that there are unique risks associated with major public infrastructure projects and is taking steps to strengthen project oversight.

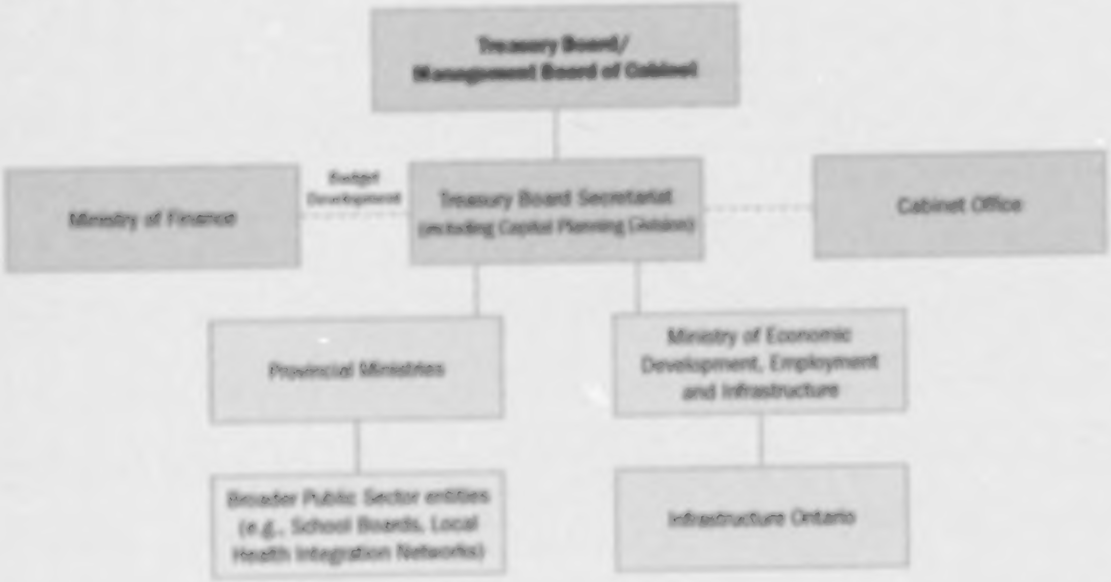
In August 2015, Treasury Board/ Management Board of Cabinet issued a new Directive for Major Public Infrastructure Projects that requires ministries to report quarterly on the status of major projects that are in procurement, under construction or recently completed.

The Directive supports the tracking of progress against approved budgets and timelines and enables an examination of options if a significant delay or cost overrun occurs on a given project. By using a risk-based approach, the Directive focuses on those projects with the greatest potential impact on Ontario's fiscal plan and policy objectives.

To further strengthen project oversight, the reporting requirements set out in the Directive will be administered by an Infrastructure Delivery Leadership Council, providing a dedicated forum for monitoring project performance. The Secretariat expects to have the Council established and the reporting process implemented in 2016/17.

Appendix—Key Parties Involved with Infrastructure Planning

Source of data: Treasury Board Secretariat


Treasury Board/
Management Board of Cabinet
Ministry of Finance
Budget Development
Treasury Board Secretariat
(including Capital Planning Division)
Cabinet Office
Provincial Ministries
Ministry of Economic Development, Employment and Infrastructure
Broader Public Sector entities (e.g., School Boards, Local Health Integration Networks)
Infrastructure Ontario

Chapter 3

Section 3.08 LHINs—Local Health Integration Networks

1.0 Background

1.1 Overview of Local Health Integration Networks

1.1.1 Purpose of Local Health Integration Networks

Ontario's 14 Local Health Integration Networks (LHINs) were established by the *Local Health System Integration Act, 2006* (Act) to achieve an integrated health system and enable local communities to make decisions about their local health systems. The purpose of the Act is "to provide for an integrated health system to improve the health of Ontarians through better access to high quality health services, co-ordinated health care in local health systems and across the province, and effective and efficient management of the health system at the local level." (See **Section 1.2.3** for more information on what an "integrated health system" means.)

1.1.2 History of Local Health Integration Networks

The Ministry of Health and Long-Term Care (Ministry) announced the creation of the 14 LHINs in September 2004 and the Act came into force in March 2006. In April 2007, all LHINs began assuming their role in managing local health services, starting with the hospital sector. By July 2010, the LHINs had fully assumed their role over all six health sectors (see **Section 1.3.1**). Prior to April 2007, the Ministry's seven regional offices were responsible for funding and monitoring health service providers, and 16 district health councils (advisory, health-planning organizations funded by the Ministry) were responsible for planning the health system and engaging communities. The district health councils were closed in March 2005 and the regional offices were closed in April 2007.

1.1.3 Comparison with the Rest of Canada

All provinces and territories in Canada use a regional approach to health care. Outside of Ontario, the bodies doing the work of administering and/or delivering health care to each region's residents are called health authorities. Ontario was the last province in Canada to adopt a regional model.

In moving toward a regional model, Ontario took a somewhat different path than that of some other provinces. The most significant difference between the LHIN model in Ontario and the regional health systems in other parts of Canada is that, in Ontario, LHINs neither directly govern nor provide health services: all of the health-care providers, such as hospitals and long-term-care homes, still maintain their own boards of directors. In contrast, in Alberta and Manitoba where all or most of the local boards of the individual health-care providers were dissolved, the regional health authorities themselves directly employ health-care workers, and directly provide health services, sometimes including primary care.

1.1.4 Structure and Governance of Local Health Integration Networks

Each LHIN is a not-for-profit Crown agency covering a distinct region of Ontario (see **Figure 1**) that varies in size, population health profile, service delivery issues and health service providers.

Each LHIN is governed by a board of directors. Each board consists of no more than nine members who are appointed by the Lieutenant Governor in Council with the advice of the Cabinet. The chair of a LHIN board is accountable to the Minister of Health and Long-Term Care for the goals, objectives and performance of the local health system.

Each LHIN also has a Chief Executive Officer (CEO), who is responsible for managing the LHIN and its staff.

On average, each LHIN employs about 40 staff. As of March 31, 2015, the 14 LHINs together employed approximately 600 full-time staff, compared to about 470 full-time staff employed by district health councils and ministry regional offices prior to the establishment of LHINs.

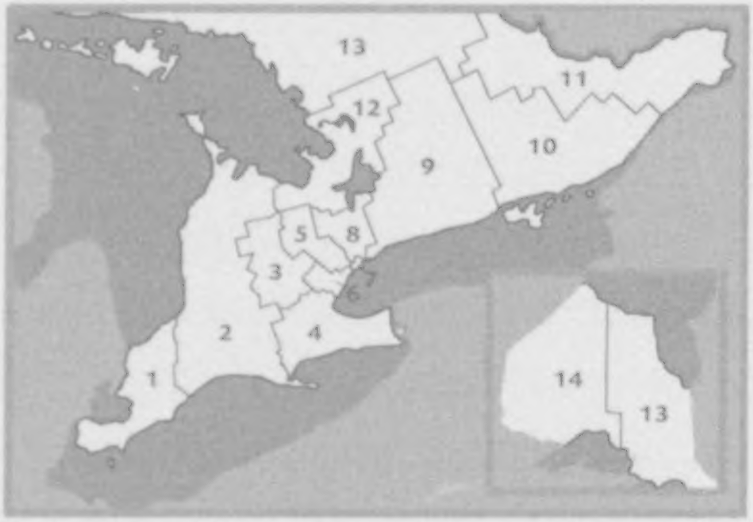
1.1.5 Operational Expenditures of Local Health Integration Networks

In the year ending March 31, 2015, the total operational expenditures of all 14 LHINs combined were $90 million. About 0.4%, or 40 cents on each $100 of the Ministry's LHIN funding (including payments destined to health service providers such as hospitals and long-term-care homes) were spent on LHIN operational expenditures. In that year, LHINs spent about half of their operational expenditures on salaries and benefits; one-third on one-time, LHIN-led initiatives for specific projects, such as those on diabetes, emergency departments and critical care; and the remainder primarily on administrative expenses such as rent, consulting services, and supplies and equipment.

Figure 1: Locations of Ontario's 14 Local Health Integration Networks

Source of data: Ministry of Health and Long-Term Care

1. Erie St. Clair
2. South West
3. Waterloo Wellington
4. Hamilton Niagara Haldimand Brant
5. Central West
6. Mississauga Halton
7. Toronto Central
8. Central
9. Central East
10. South East
11. Champlain
12. North Simcoe Muskoka
13. North East
14. North West



1.2 Functions of Local Health Integration Networks

The Act sets out every LHIN's obligation to plan, fund and integrate its local health system into 14 specific responsibilities that it calls "objects," which are listed in **Appendix 1**. They include, for example, developing strategies to improve the integration of the provincial and local health systems, and making the delivery of health services more economically efficient toward a more sustainable health system. Further details of the LHINs' three functions—planning, funding, and integrating—are provided below.

1.2.1 Planning

Planning at the four LHINs we visited generally involves these steps:

- holding community engagements to seek input from community members (such as associations representing specific health sectors—for instance, the Ontario Hospital Association and the Ontario Association of Community Care Access Centres), patients, and health service providers on ways to identify local priorities and improve health care in the region;
- defining the current needs of the local health system, considering the demographics, socio-demographic characteristics, and health status of its residents, as well as the health practices and preventive care taken by its residents;
- defining the current state of performance of the local health system, taking into account how residents use these health services (for example, by studying wait times); and
- determining and prioritizing the health service gaps that need to be addressed.

After each LHIN conducts the above activities, it develops an Integrated Health Service Plan that outlines plans and priorities for the local health system. (LHINs can also conduct these planning activities for reasons other than to develop their Integrated Health Service Plans, such as to inform LHIN decisions on system planning throughout the year.) The Act requires that these plans, which are completed every three years, be made public. The Ministry reviews these plans to identify possible policy implications in the plans' proposals and whether the contents are consistent with directions set out in the overall provincial health-care action plan—both the original 2012 plan and the updated 2015 iteration—that sets out the government's commitment to put patients at the centre of the system.

1.2.2 Funding

According to the Act and the accountability agreement between the Ministry and each LHIN, LHINs can, with certain exemptions, allocate funds as they choose among and between health service providers and health sectors. For example, a LHIN can choose to transfer funds from assisted-living services to addiction services, or from a hospital to a community-based agency, subject to various conditions, such as ensuring they reallocate unused funding dedicated to a health sector to another sector with Ministry approval. LHINs have less discretion over funding in the long-term-care homes sector because that is based on per-diem rates set by the Ministry.

Before 2012, the Ministry used to fund hospitals and CCACs on the basis of how much they had received in the previous year. Starting April 1, 2012, the Ministry began to reform the funding methodology to these two sectors so that some funding would be based on forecasted population growth, past usage of health services, the number of people cared for and the services they provide. As a result, LHINs today can only reallocate funding in these two sectors on amounts that are not subject to the reform. In the year ending March 31, 2015, funding from the reformed methodology represented about 50% of funding in hospitals and 30% of funding in CCACs.

In 2007/08, the LHINs received a combined total of $50 million to establish the Urgent Priorities Fund. This fund has been part of the LHINs' overall annual funding since then. LHINs can spend this

Figure 2: Local Health System Integration—Meanings and Examples

Sources of data: *Local Health System Integration Act, 2006*; Local Health Integration Networks

Meaning of Integration in the *Local Health System Integration Act, 2006*	Examples from the Four LHINs We Visited
To co-ordinate services and interaction between different persons and entities	• developed a system to co-ordinate referrals across hospitals • integrated central assessment records for community agencies and long-term-care homes • developed central access and crisis line for palliative care • co-ordinated provision of different health services, such as hospital, family doctor, long-term-care home and community organizations, to work as a team to develop health-care plans for patients with complex needs
To partner with another person or entity in providing services or in operating	• partnered with a health-service provider to provide language interpretation services for all patients within the LHIN requiring interpretation • partnered with a hospital to purchase telemedicine units for long-term-care homes • partnered with a hospital to provide mobile support for seniors with high needs
To transfer, merge or amalgamate services, operations, persons or entities	• merged different health-service providers (such as merging the Toronto Rehabilitation Institute with the University Health Network) • amalgamated transportation services among community agencies • transferred a seniors program from a community agency to a long-term-care home • transferred acute stroke services from one hospital to another
To start or cease providing services	• introduced a new model of assisted living for high-risk seniors • created a new model of congregate care for adults with disabilities at a community agency • introduced a new addiction support service for pregnant mothers with addictions at a community health centre • stopped providing funding for a specific service at a health-service provider
To cease to operate or to dissolve or wind up the operations of a person or entity	• stopped providing funding to a health-service provider

fund on projects submitted by health service providers to address urgent local health-care priorities. Each LHIN has authority to allocate its share of this fund as it chooses to, provided the funding is used to provide direct health services (as opposed to paying for consultants, planning, research or staffing costs).

1.2.3 Integration

The Act sets out various definitions of the term "integration." **Figure 2** outlines these different definitions and provides specific examples of integration activities we noted at the four LHINs we visited.

LHINs' authority to integrate only extends to the health service providers in the six health sectors that they fund. LHINs can integrate the local health system in three ways:

- by providing or changing funding to a health service provider;
- by facilitating and negotiating the integration of health service providers; and
- by instructing a health service provider to either proceed with or stop integration.

1.3 Parties Involved in Delivering, Overseeing, and Reporting on Health Care

1.3.1 Six Health Sectors Managed by LHINs

Planning, funding and integrating the local health system involves each LHIN managing the following six health sectors:

- public and private hospitals;
- long-term-care homes;
- community care access centres (CCACs);
- community mental health and addiction agencies;
- community support service agencies; and
- community health centres.

In the year ending March 31, 2015, LHINs provided a total of about $25 billion in funding to health-care organizations within these six sectors, representing slightly over half of the provincial health-care budget for that year, as shown in **Figure 3**. (The remaining budgeted funding went to areas LHINs are not responsible for, as well as health capital costs.)

LHINs are not responsible for the following elements of the health-care system: primary care, with the exception of community health centres (includes family physicians, nurse practitioners and others who serve as the first and ongoing point of contact for patients), public health, laboratory services, the Ontario Health Insurance Plan (OHIP), emergency medical services (ambulance services), programs providing assistive devices and drug programs, to name a few.

1.3.2 The Ministry of Health and Long-Term Care

The Ministry of Health and Long-Term Care (Ministry) is ultimately responsible for monitoring and reporting on the health system as a whole. The Ministry's role is to provide overall direction and leadership for the health system, focusing on developing legislation, standards and policies to support its strategic directions, and ensuring that the LHINs fulfil the Ministry's expectations. Those expectations are outlined in two agreements it established with each of the 14 LHINs: the Ministry–LHIN Memorandum of Understanding, and the Ministry–LHIN Performance Agreement (accountability agreement).

The Ministry also manages provincial programs that are not managed by LHINs (refer to **Section 1.3.1**).

Figure 3: Expenditures of LHINs and Health Sectors Managed by LHINs for Fiscal Year Ending March 31, 2015

Source of data: Ministry of Finance

	Expenditures ($ million)	% of Overall Provincial Health Expenditures
LHIN Operational Expenditures	90	0.2
Health Sectors Managed by LHINs		
Hospitals	16,942	33.8
Long-Term Care Homes	3,545	7.1
Community Care Access Centres	2,495	5.0
Community Mental Health and Addiction Agencies	936	1.9
Community Support Services Agencies	834	1.6
Community Health Centres	378	0.8
Other LHIN Expenditures (for electronic health records)	7	<0.1
Total Health Funding Managed by LHINs, including LHIN Operational Expenditures	**25,227**	**50.4**
Health Funding Not Managed by LHINs	24,786	49.6
Total Provincial Health Expenditures	**50,013**	**100.0**

Appendix 2 shows the relationships among the Ministry, LHINs and health service providers.

How the Ministry Measures the Effectiveness of LHINs

The Ministry has selected 15 areas of performance for measuring the effectiveness of LHINs. The 15 areas, which are set out in the Ministry–LHIN accountability agreement that was effective in 2014/15, are shown in **Figure 4**.

For 11 of those areas (areas 1–11 in **Figure 4**), the Ministry has set both a provincial target and separate LHIN-specific targets. For three of these areas that relate to surgery wait times, the provincial target and LHIN-specific target are the same. The provincial target represents the ideal level of performance. The LHIN-specific targets are negotiated between the Ministry and the LHIN, taking into account past performance and local challenges, with the intent to move the LHIN's performance closer to provincial targets.

For the remaining four areas (areas 12–15 in **Figure 4**), the Ministry has set only LHIN-specific targets, which differ from one LHIN to the next.

Figure 4: Indicators Used by the Ministry of Health and Long-Term Care to Measure Performance of Local Health Integration Networks

Source of data: Ministry of Health and Long-Term Care

Access to Health Services	
1	90th percentile emergency room length of stay for admitted patients
2	90th percentile emergency room length of stay for non-admitted complex patients with a CTAS score of 1 to 3
3	90th percentile emergency room length of stay for non-admitted uncomplicated patients with a CTAS score of 4 to 5
4	% of Priority 4 cases completed within access target of 84 days for cancer surgery
5	% of Priority 4 cases completed within access target of 90 days for cardiac by-pass procedures
6	% of Priority 4 cases completed within access target of 182 days for cataract surgery
7	% of Priority 4 cases completed within access target of 182 days for hip replacement
8	% of Priority 4 cases completed within access target of 182 days for knee replacement
9	% of Priority 4 cases completed within access target of 28 days for MRI scan
10	% of Priority 4 cases completed within access target of 28 days for diagnostic CT scan
Co-ordinated Health Care	
11	% of Alternate Level of Care (ALC) days
12	90th percentile wait time from community for CCAC in-home services (application from community setting to first CCAC service, excluding case management)
High-quality Health Services	
13	Readmissions within 30 days for selected CMGs
14	Repeat unscheduled emergency visits within 30 days for mental health conditions
15	Repeat unscheduled emergency visits within 30 days for substance abuse conditions

Explanatory Notes:

90th percentile wait time in emergency room—number of hours that nine out of 10 patients stayed in the emergency room.

ALC: Alternate Level of Care – measures how often a patient who could be treated elsewhere occupies a hospital bed.

CCAC: Community Care Access Centre

CT: computer tomography – produces cross-sectional images of body parts such as the head and the abdomen.

CTAS: Canadian Triage and Acuity Scale – categorizes patients by both injury and physiological findings, ranking them by severity from 1 (being the highest) to 5.

CMG: Case Mix Groups – acute-care inpatients with similar clinical and resource-utilization characteristics, including the following seven conditions: stroke, chronic obstructive pulmonary disease, pneumonia, congestive heart failure, diabetes, cardiac and gastro-intestinal disorders.

Length of stay: describes the duration of a single episode of hospitalization.

MRI: Magnetic resonance imaging – uses radiology to investigate the anatomy and physiology of the body.

Priority 4: patients who are waiting for a scheduled follow-up appointment at a specific interval to meet their clinical needs; the lowest of four priority levels (priority 1 would be immediate.)

1.3.3 Health Service Providers

Health-care organizations within the six health sectors that LHINs manage are called health service providers. A health service provider could be a hospital, a CCAC, a mental health and addiction agency, a community health centre, a community support services agency, or a long-term care home. Health service providers provide health services to Ontarians according to the terms and conditions spelled out in formal agreements with LHINs called service accountability agreements. In the year ending March 31, 2015, the 14 LHINs together managed about 1,700 such agreements with about 1,300 health service providers. (Some service providers operate multiple health services and therefore have multiple service accountability agreements with the LHINs.) **Figure 5** shows the number of unique health service providers by LHIN as at March 31, 2015.

How LHINs and the Ministry Oversee Health Service Providers

Health service providers report on their own performance against targets set out in the contract they negotiate with the LHIN, using a data entry tool. When health service providers perform below expectations, depending on the severity of the issue, the LHINs and sometimes the Ministry can intervene in different ways, including requesting operational reviews and peer reviews. The Ministry can also choose to appoint supervisors.

1.3.4 Health Quality Ontario

Health Quality Ontario is an independent government agency created in September 2005 that is responsible for monitoring and reporting on the state of the health system in Ontario.

Figure 5: Number of Unique Health Service Providers in the Six Health Sectors Funded by LHINs as at March 31, 2015

Source of data: Ministry of Health and Long-Term Care

LHIN	Hospitals	Long-term Care Homes	Community Care Access Centres	Community Health Centres	Community Support Services Agencies	Mental Health and Addiction Agencies	Total
Toronto Central	18	37	1	17	70	82	**225**
Hamilton Niagara Haldimand Brant	9	87	1	7	64	40	**208**
Champlain	21	61	1	11	60	44	**198**
North East	25	40	1	6	75	47	**194**
South West	20	80	1	5	49	33	**188**
Central	9	77	1	2	39	23	**151**
North West	13	14	1	2	64	35	**129**
Central East	9	46	1	7	44	21	**128**
South East	7	37	1	5	33	22	**105**
Erie St. Clair	7	38	1	5	34	16	**101**
Waterloo Wellington	8	36	1	4	27	14	**90**
North Simcoe Muskoka	7	27	1	3	31	11	**80**
Mississauga Halton	2	28	1	1	33	12	**77**
Central West	2	23	1	2	18	9	**55**
Total	**157**[1]	**631**	**14**	**77**[1]	**641**[1]	**409**[1]	**1,929**[2]

1. Total number of unique agencies by sector is greater than the sector's total number of agencies reported in Appendix 2 because some agencies provide services in multiple sectors and in multiple LHINs.

2. There are about 1,300 unique health service providers across Ontario.

2.0 Audit Objective and Scope

Our audit objective was to assess whether Local Health Integration Networks (LHINs), in conjunction with the Ministry of Health and Long-Term Care (Ministry), have effective systems and procedures in place to facilitate the provision of the right care at the right time in the right place for Ontarians. Senior ministry management reviewed and agreed to our audit objective and associated audit criteria.

Our audit work was conducted between December 2014 and June 2015, primarily at four selected LHINs—Central, Hamilton Niagara Haldimand Brant, North East, and Toronto Central. Their combined expenditures in the year ending March 31, 2015, were $11 billion, or 44% of the overall provincial funding for LHINs that year. We also conducted other work at the Ministry's offices in Toronto.

In conducting our audit, we reviewed relevant documents, legislation and ministry guidelines; analyzed information; interviewed ministry staff, the Chief Executive Officer (CEO) and staff from each of the four LHINs we visited; reviewed relevant information and research on regionalized health system models from other provinces and territories; and attended one community engagement event and one board of directors meeting at each of the four LHINs we visited. We also interviewed senior officials from Health Quality Ontario and Cancer Care Ontario to understand how these organizations work with LHINs. As part of our planning for this audit, we reviewed a number of the Ministry's internal audit reports on LHINs and considered them in determining the scope of our audit.

To obtain perspectives from those who manage and govern the LHINs as well as those overseen by LHINs, we also conducted a survey of all current and former CEOs and board members of the 14 LHINs for whom we have contact information (70% of those contacted responded to our survey), and the current senior officials (usually the CEOs) at about 1,300 health service providers that are funded by the 14 LHINs for whom we have contact information (57% of those contacted responded to our survey). In addition, we met with senior representatives from associations that represent all six health sectors that LHINs oversee. They include: Addictions and Mental Health Ontario, the Association of Ontario Health Centres, the Ontario Association of Community Care Access Centres, the Ontario Community Support Association, the Ontario Hospital Association, and the Ontario Long Term Care Association.

3.0 Summary

Since 2007, the 14 Local Health Integration Networks (LHINs) in Ontario have been responsible for planning, funding and integrating health services in six sectors, including hospitals, long-term-care homes and community-based health services such as Community Care Access Centres, as shown in **Appendix 2**. The LHINs have a significant task: to provide for an integrated health system in Ontario. According to the legislation that created them, such a health system would be efficient and effectively managed through the provision of accessible and high-quality health services, so that Ontarians will experience better health and better co-ordinated care across health sectors, locally and throughout the province.

The formation of LHINs has allowed health service providers, such as hospitals, and the home and community sector to better work together to find solutions to common health system issues, as a number of working groups and committees have been established to address common priority areas such as mental health and palliative care. However, to fully realize the value of LHINs, both the Ministry of Health and Long-Term Care (Ministry) and the LHINs themselves need to better ensure that LHINs are meeting their mandate.

Our audit found that the Ministry has not clearly determined what would constitute a "fully integrated health system," or by when it is to be achieved, nor has it yet developed ways of measuring how effectively LHINs are performing specifically as planners, funders and integrators of health care.

If achieving the LHINs' mandate means meeting all expected performance levels measured (as shown in **Figure 4**), then LHINs have not achieved their mandate of providing the right care at the right time in the right place consistently throughout the health system. While province-wide performance in six of the 15 areas measured has improved between the time the LHINs were created and 2015, in the remaining nine areas, performance has either stayed relatively consistent or deteriorated since 2010 or earlier, as shown in **Figure 6**. For instance, a greater percentage of inpatient days were used by patients who did not need acute care in a hospital setting for the year ending March 31, 2015, as compared to when LHINs started to operate in 2007.

Most LHINs performed below expected levels in the year ending March 31, 2015. In that year, LHINs on average achieved their respective local targets for six of the 15 performance areas; the best-performing LHIN met local targets in 10 areas and the worst-performing LHINs (there were four) met only four, as shown in **Figure 10**. Based on the provincial results that include all 14 LHINs, only four of the 11 provincial targets that measure long-term goals for LHINs were met. The Ministry has not set any timelines for when all 14 LHINs are expected to meet the 11 provincial targets. In four areas such as those concerning home care, mental health, and substance abuse, the Ministry did not set any long-term goals, as shown in **Figure 7**.

We also found that the performance gap among LHINs has widened over time in 10 of the 15 performance areas. For instance, patients in the worst-performing LHIN waited 194 days, or five times longer than the best-performing LHIN, to receive semi-urgent cataract surgery in 2012. Three years later, this performance gap widened from five times to 31 times. The Ministry needs to better

Figure 6: Province-wide Performance Trend in 15 LHIN Measurement Areas

Sources of data: Cancer Care Ontario, Cardiac Care Network of Ontario, Ministry of Health and Long-Term Care

Performance declined between 2007 (or 2010 when earliest comparable data available) and 2015	
1	Readmissions within 30 days for selected CMGs
2	% of Alternate Level of Care days
3	Repeat unplanned emergency visits for patients with mental health conditions
4	Repeat unplanned emergency visits for patients with substance abuse conditions
Performance remained consistent between 2007 and 2015	
5	Cardiac by-pass procedures provided within 90 days
Performance improved between 2007 and 2010 but plateaued or worsened since 2010	
6	Cataract surgery provided within 182 days
7	Hip replacement provided within 182 days
8	Knee replacement provided within 182 days
9	Diagnostic CT scan provided within 28 days
Performance improved since 2007 (or 2009 when earliest comparable data available)	
10	Length of emergency room stay for admitted patients
11	Length of emergency room stay for complex patients not admitted to hospital
12	Length of emergency room stay for non-complex patients not admitted to hospital
13	MRI scan provided within 28 days
14	Cancer surgery provided within 84 days
15	Wait time for CCAC in-home services

Note: Appendix 3 provides detailed statistics on trend performance for each of the measured areas.

Figure 7: Comparison of Best- and Worst-performing LHINs in 15 Performance Areas, Year Ending March 31, 2015

Source of data: Ministry of Health and Long-Term Care

	Performance Area[1]	Actual Performance			LHIN-specific Target (Low to High)	# of LHINs that Did Not Meet Their Respective LHIN-specific Target	Provincial Target	# of LHINs that Did Not Meet the Provincial Target
		Best-performing LHIN	Worst-performing LHIN	Provincial Results				
1	Length of ER stay for admitted patients	17.5 hours	34.7 hours	29.5 hours	8 hours–30.6 hours	14	8 hours	14
2	Length of ER stay for complex patients not admitted	5.6 hours	7.8 hours	6.8 hours	6.25 hours–8 hours	4	8 hours	0
3	Length of ER stay for non-complex patients not admitted	3.4 hours	4.5 hours	4.03 hours	3.7 hours–4.5 hours	6	4 hours	6
4	Cancer surgery provided within 84 days	99.8%	86.9%	94.7%	90%	2	90%	2
5	Cardiac by-pass provided within 90 days[2]	100.0%	78.0%	98.0%	90%	1	90%	1
6	Cataract surgery provided within 182 days	99.7%	85.4%	92.5%	90%	4	90%	4
7	Hip replacement provided within 182 days	97.0%	49.1%	86.3%	80%–90%	9	90%	10
8	Knee replacement provided within 182 days	95.3%	44.3%	84.2%	75%–90%	10	90%	11
9	MRI scan provided within 28 days	55.0%	11.1%	37.6%	30%–90%	12	90%	14
10	Diagnostic CT scan provided within 28 days	96.2%	51.4%	77.9%	70%–90%	9	90%	11
11	ALC days[3]	6.9%	22.6%	14.0%	9.46%–22%	9	9.46%	12
12	Wait time for CCAC in-home services	12 days	82 days	28 days	17 days–66 days	5	Not established	n/a[4]
13	Readmissions of select CMGs[5] within 30 days	15.3%	18.8%	16.7%	12.8%–18%	12	Not established	n/a[4]
14	Repeat unscheduled emergency visits within 30 days for patients with mental health conditions	15.1%	27.2%	19.6%	13.2%–23%	12	Not established	n/a[4]
15	Repeat unscheduled emergency visits within 30 days for patients with substance abuse conditions	19.6%	40.7%	30.4%	18.1%–33%	13	Not established	n/a[4]

1. Figure 4 gives detailed information on these performance areas.
2. Nine of the 14 LHINs provide cardiac by-pass procedures within their geographic areas.
3. The number of days that patients who do not require hospital care stay in hospital because they cannot obtain care elsewhere or have not been able to be discharged from the hospital.
4. Not applicable because the Ministry has not established a provincial target for this area.
5. CMGs are Case Mix Groups—acute-care inpatients with similar clinical and resource utilization characteristics, including the following seven groups of conditions: stroke, chronic obstructive pulmonary disease, pneumonia, congestive heart failure, diabetes, cardiac and gastro-intestinal disorders.

understand the reasons for the widening gap and implement changes to narrow that gap if it wants to achieve its goal of ensuring health service levels do not vary significantly across the province.

In addition, these 15 areas of performance are intended to measure the performance of the local health system rather than the LHINs themselves. While the Ministry has ongoing engagement with the LHINs to understand and monitor their performance, it did not have performance indicators to measure how effectively LHINs are performing as planners, funders and integrators of health care. For the most part, the performance indicators measure the effectiveness of hospitals, so the Ministry has limited knowledge of how LHINs ensure health services are delivered satisfactorily in non-hospital sectors.

Our other specific observations in this audit include:

- **LHINs have not been consistently assessing whether their planning and integration activities were effective in providing a more efficient and integrated health system, and determining how much cost savings have been reinvested into direct patient care as a result of integration**—Only one in five health service providers who responded to our survey felt that LHINs are on track to achieving the goals in their strategic plans, compared to almost 80% of the current and former LHIN board members and CEOs. We found that three of the four LHINs we visited did not establish any quantifiable targets or performance measures on their goals and strategies in the integrated health service plans to assess whether their planned work has helped them progress toward a fully integrated local health system.
- **Due to inconsistent and variable practices that still persist across the province, patients face inequities in accessing certain health services**—These variances mean that, depending on where they live, some people experienced better access to better integrated health care than others, and some people were not receiving health care in the setting that best meets their health needs and, sometimes, at a much higher cost than necessary. Moreover, because provincial standards or approaches to care are lacking in some areas, patients receive differing standards of care for the same health condition. We found that while processes are in place to enable collaboration among LHINs, much more can be done to enhance consistency.
- **The Ministry takes little action to hold the LHINs accountable to make changes when low performance continues year after year**—When LHINs do not meet their targets, the Ministry has seen its role as being "supportive" rather than "directive" in effecting improvement. While this might be advisable in some cases, in other instances this has contributed to performance issues persisting for years. For example, one of the four LHINs we visited did not meet the annual wait time target for MRI scans in six of the eight years leading up to March 31, 2015. Another LHIN we visited did not meet its annual hip replacement wait time target in seven out of the last eight years.
- **The Ministry responds differently to challenges faced by LHINs**—When an expected performance was not achieved in one year, for some LHINs the target became more lax; for other LHINs the target stayed the same or became more stringent. For instance, of the seven LHINs that could not meet their respective Alternate Level of Care (ALC) performance targets between 2011/12 and 2014/15, the Ministry lowered the target for five LHINs (for instance, from 17% to 22% ALC days in one LHIN), and either tightened or maintained the target for the remaining two. (ALC days refer to hospital inpatient days used by patients who no longer needed hospital care but were waiting for care elsewhere or to be discharged.) The Ministry indicated that it sets these

revised targets jointly with LHINs to account for local circumstances and challenges.

- **LHINs could do more to define system capacity**—Capacity refers to how service supply meets current and future demand for services. Concerns have been raised about insufficient capacity planning in the areas of palliative care, home- and community care, and rehabilitative services.
- **LHINs need to better monitor health service providers' performance**—At the four LHINs we visited, we found that quality of health services is not consistently monitored, performance information submitted by health service providers (some of which contained errors) is not verified, and non-performing health service providers are not consistently dealt with in accordance with Ministry guidelines. Regarding the latter, we found that the four LHINs we visited predominantly discussed and shared information with health service providers even for issues that have persisted for years.
- **Tracking of patient complaints lacks rigour**—There is no common complaint management process across LHINs, and LHINs did not always ensure that patient complaints are appropriately resolved. Across the province, three LHINs did not track complaints at all in 2014, or only partially tracked them.
- **Group purchasing and back-office integration were not consistently implemented or fully explored**—LHINs could not demonstrate that they have maximized economic efficiencies in the delivery of health services as per their mandate, because the use of group purchasing and "back office integration" (that is, integrating or consolidating the administrative and business operations of LHINs and/or health service providers) differed across the four LHINs we visited. According to our survey results, more health service providers wanted LHINs to explore additional group purchases and back-office integration opportunities than did not. Also, while over 70% of the current and former LHIN board members and CEOs felt that LHINs have brought economic efficiencies to the delivery of health services, only a quarter of the health service providers who responded felt the same way.

This report contains 20 recommendations, consisting of 37 actions, to address the findings noted during this audit.

OVERALL MINISTRY RESPONSE

In 2006, the government established Local Health Integration Networks (LHINs) in recognition that a health system is best organized and managed at the local level. Under the LHIN model, the Ministry of Health and Long-Term Care (Ministry), LHINs and health service providers work collaboratively in planning, funding and integrating health care services to improve access to care and better co-ordinate the delivery of services within LHINs' geographic areas.

LHINs are key partners working collaboratively with the Ministry in implementing the *Patients First: Action Plan for Health Care*, the government's blueprint for the next phase of health care transformation. *Patients First* is designed to put people and patients first by improving their health care experience and their health outcomes. With extensive knowledge and understanding of their local communities, LHINs are uniquely positioned to translate the provincial priorities identified in *Patients First* into local actions. With their in-depth knowledge and understanding of their local health care systems and the needs of their population, LHINs have made substantial progress in ensuring that Ontarians have access to high-quality person-centred care.

Within a complex health care system that includes over 1,800 health service providers across multiple sectors, the LHINs have worked locally to implement improvement initiatives in communities across the province, many of which are focused on people with the highest needs. LHINs have been effective champions for the shift from acute care to community care so that we make the best use of our hospital resources and give people more options for care at home. LHINs have also demonstrated transparency and accountability by leading extensive community engagement activities, developing and publishing three-year Integrated Health Service Plans, Annual Business Plans and Annual Reports, and holding board meetings that are open to the public.

The Ministry appreciates the recommendations contained in the Auditor General's audit of the LHINs. The recommendations build upon the strong accountability and performance framework already in place between the Ministry, LHINs, and their health service providers, and support the ongoing work to improve patient care and access to health care across the province.

OVERALL LHINs' RESPONSE

The Local Health Integration Networks (LHINs) appreciate the opportunity to participate in this audit. The observations, insights and recommendations presented in the Auditor General's report will support our ongoing efforts and commitment to continuously improve Ontario's health system for the individuals and communities we serve. The audit report highlights key areas of focus for the LHINs' role in the broader health system – performance, accountability, integration and funding. The LHINs agree with these focus areas and will thoughtfully consider all of the input and recommendations provided.

The LHINs recognize their unique contribution to the performance of the health system. LHINs are system planners, funders, facilitators and leaders; LHINs are not direct care providers nor health service operators. As such, while the current indicators such as wait times, readmissions and alternate levels of care are important, there are only indirect measures of the LHINs' performance and achievement of their mandate. LHINs are engaged in the identification and development of more direct measures of LHIN performance.

The health system performance indicators have evolved during the 10 years that LHINs have been in existence, resulting in revised definitions, specifications, and/or data sources. Indicator evolution is important and positive; however, such changes limit the ability to draw conclusions about performance across time, and thus should be done cautiously. Comparisons of performance between LHINs based solely on select indicators should also be approached cautiously. The LHINs share the concern expressed by the Auditor General about the considerable variance between LHINs on performance indicators. It must be acknowledged, however, that contextual differences exist historically and currently in the LHINs that influence these results, including population demographics, health status, geography, levels of service and providers. Despite these challenges, the LHINs will continue to actively work together, in collaboration with health service providers and the Ministry, to improve health system performance as measured by the indicators outlined in their accountability agreements.

Under the *Local Health System Integration Act* (Act), the LHINs have a responsibility to plan, integrate and fund the care and service delivered in their communities by health service providers. One of the purposes of LHINs under the Act is to "…enable local communities to make decisions about their local health systems." LHINs engage with and seek input from their communities, represented by patients, health service providers, citizens, associations, municipalities and others. LHINs are best positioned to understand the strengths, challenges and needs of the population and providers within their geographic areas, which is key to building a robust and sustainable health system that puts patients first. Through service accountability agreements and strong working relationships, LHINs hold health service providers accountable for the quality, quantity and value of the care and services they deliver. LHINs take these responsibilities very seriously and continually seek to improve on them.

LHINs welcome the input and feedback garnered through formal and informal community engagements, health service provider collaboration, and now the report of the Auditor General of Ontario. LHINs will work in collaboration with the Ministry of Health and Long-Term Care and others to address the recommendations as outlined in our responses below.

4.0 Detailed Audit Observations

4.1 Performance Improved Only in Limited Areas over Time and Varies from One LHIN to the Next; Variation Widens over Time for Two-thirds of Measured Areas

With the growing and aging population, continuous improvement of the health system is important so that patients can receive the best quality health care possible. Even though the province is divided into 14 parts for the purpose of planning, funding and integrating health services, patients should expect to receive fairly consistent quality of care on a timely basis no matter where they live. However, we found that the LHINs' performance has not significantly improved since inception and that their performance varies from one to the next. In addition, between 2012 and 2015, the performance gap among LHINs actually increased in two-thirds of the performance areas despite the fact that the Ministry has a goal of reducing this performance gap. As a result, patients' ability to receive consistent, good quality care across the province is limited.

We look at the above issues in detail in the following subsections.

4.1.1. No Notable Improvement in Performance Since Inception of LHINs

We compared the performance of all 14 LHINs between 2007 and 2015 to determine whether LHIN performance has improved over time. Overall, we found that in nine of the 15 performance areas, LHINs' performance has either stayed relatively consistent or deteriorated since 2010 or earlier, as shown in **Figure 6**. As a result, LHINs cannot demonstrate that they have effectively integrated the local health system and improved patient care and access to high quality health services.

Appendix 3 shows the performance trend of all 15 performance areas between 2007 and 2015.

Performance Declined in Areas that Measure Integrated Health Services

Four of the 15 performance areas measure LHINs' activities in integrating health services, because success in these areas requires LHINs to ensure services are delivered efficiently and effectively in both hospital and community health-care settings. These performance areas are:

- readmission of selected groups of acute hospital patients to any facility for inpatient care within 30 days of discharge;
- repeat unplanned emergency visits for patients with mental health issues;
- repeat unplanned emergency visits for patients with substance abuse conditions; and
- hospital inpatient days used by patients who no longer needed hospital care but were waiting for care elsewhere or to be discharged (referred to as Alternate Level of Care or ALC days)

On a provincial basis, performances have steadily declined in three of these four areas since the inception of LHINs. (In the case of ALC days, performance declined from the inception of LHINs to 2010/11, then remained relatively constant from 2011/12 through 2014/15.) For example, in the year ending March 31, 2010 (the earliest comparative data available), about 26% of patients with substance abuse conditions in the province had to visit the emergency department within 30 days of their first emergency visits. In the year ending March 31, 2015, this increased to about 30%. These unplanned repeat emergency visits are not only problematic on their own, they can also impact related wait times. This trend indicates that LHINs could do more to plan and integrate health services to help patients' access community-based services.

Similarly, a greater number of hospital inpatient days were used by patients who no longer needed acute care in a hospital setting for the year ending March 31, 2015, as compared to when LHINs started to operate in 2007. In the year immediately prior to the first full year of LHIN operation, 12% of all hospital patient days were attributed to ALC patients. This has increased to 16% in 2011, then 14% between 2012 and 2015. This trend indicates that a significant number of patients were receiving care in a setting that was no longer appropriate for their care needs, which may potentially have a negative impact on the patient's health. As well, it is much more costly to keep patients in a hospital as opposed to a community setting.

We recognize that the aging population is one of the factors causing an increase in ALC days—the proportion of people aged 75 or more has steadily increased from 6.2% to 6.9% between 2006 and 2014. In recent years, the four LHINs we visited have all treated health services to senior adults as a priority service area, yet the Ministry and the LHINs could do more to better plan health services for senior adults so that these patients receive the care they need.

Overall Performance Declined or Not Significantly Changed Since 2010 for Certain Hospital Procedures

Although access to specific surgery (cataract, hip replacement, and knee replacement) and CT scans had improved between LHINs' inception and 2010, the overall performance had either plateaued or gotten worse. For instance, between 2007 and 2010, wait times for cataract surgeries had gone down, from 220 days to 108 days, for 90% of the patients in the province. This performance has worsened since 2010 and for the year ending March 31, 2015, the wait time climbed to 160 days, compared to a provincial target of 182 days.

The overall provincial wait time between 2007 and 2015 for all types of cardiac by-pass procedures (urgent, semi-urgent, and elective) has remained consistent at around 40 days.

According to our survey results, while 60% of the current and former LHIN board members and CEOs felt that the health system is performing as expected, given that LHINs have only been in operation since 2007, just a quarter of the health service providers felt the same way.

Certain LHINs Always Performed Worse than Provincial Average

Since the introduction of LHINs, three have consistently performed below others in at least five of the 15 performance areas. For example, between March 2007 and March 2015, one LHIN consistently performed worse than the overall provincial performance in the areas of: patients with mental health and substance abuse conditions needing to repeatedly visit emergency room within 30 days of first emergency visit; patients who are not ultimately admitted to hospital waiting longer in emergency rooms for care; and patients waiting longer to receive cancer surgeries. We discuss Ministry action on LHINs that do not perform at expected levels in **Section 4.2.3**.

4.1.2 Ontario Performs Better than the Canadian Average in Most Measured Areas Relating to LHINs; Still Has Room to Improve in Other Areas

Appendix 4 compares Ontario's performance to the rest of Canada on a number of health-system performance indicators reported by Health Quality Ontario and the Canadian Institute for Health Information (CIHI). Between 2010 and 2014, Ontario's performance was better than the Canadian average in most of the measured areas that relate to LHINs, such as access to radiation therapy and 30-day readmission for mental illness. Its performance was below average in other areas, however, such as access to cataract surgery and better informing patients discharged from hospitals on what to expect after they return home.

4.1.3 Performance Varies across LHINs

Ontarians on the whole do not have equitable access to health services due to various factors, including the performance variance among LHINs, not only in the 15 areas that the Ministry focuses on but also in areas that Health Quality Ontario and the Canadian Institute for Health Information (CIHI) report on. These at-times significant variances mean that, depending on where they live, some people experienced better access to more fully integrated health care than others and some did not receive health care in the most appropriate settings, sometimes at a much higher cost than necessary. As well, when a number of LHINs are responsible for a different geographical portion of a single large urban area, people may not have equal access to health services, even though the similar population size and health-care infrastructure in each LHIN would lead the public to expect similar experiences. For instance, five different LHINs oversee the health services available in the City of Toronto. While residents of East Toronto and Scarborough are geographically near each other and live in neighbourhoods that have much in common, the East Toronto resident is served by the Toronto Central LHIN and the Scarborough resident is served by the Central East LHIN. But residents in these LHINs experience significantly different wait times in accessing certain hospital procedures.

In response to our survey, half of the current and former LHIN board members and CEOs felt that the level of health care provided to Ontarians has become more equitable compared to before LHINs were created. Only one-third of the health service providers felt the same way. Further, when we asked whether they felt Ontarians can access an equitable set of health services regardless of where they live, over 60% of the health service providers and over 40% of the current and former LHIN board members and CEOs indicated no.

Ministry-measured Performance Indicators

As shown in **Figure 7**, for the year ending March 31, 2015, performance in the 15 areas varied among LHINs. The difference in performance between the best- and worst-performing LHIN could be as much as sevenfold. Some examples are as follows:

- Across Ontario, 14% of hospital inpatient days were used by patients who no longer needed hospital care, but were waiting in hospital until they could find care elsewhere or be discharged (also known as ALC days as explained in **Section 4.1.1**). Among the 14 LHINs, however, ALC days varied widely, from about 7% of inpatient days in one LHIN to about 23% in another—a more-than-triple difference. This inefficient use of hospital resources could reflect the lack of system integration and post-discharge service availability as well as inadequate discharge co-ordination processes as noted in our 2010 audit of discharge of hospital patients, causing delays in discharge arrangements.
- Province-wide, about 38% of patients who had the lowest-priority needs were able to access MRI scans within 28 days (although the Ministry, through Cancer Care Ontario, collects and reports MRI wait times for those patients with higher priority needs, such data was not

measured against targets and not included in the Ministry-LHIN accountability agreement at the time of our audit). The best-performing LHIN was able to provide access within 28 days to over half of its patients, compared to another LHIN that could only provide that prompt access to 11% of its patients.

- Across Ontario, 90% of the patients who were referred to CCACs by their family or primary-care physician (as opposed to being referred by a hospital after a hospital stay) received their first CCAC in-home service in 28 days. However, depending on where a person lives in the province, the wait time could be as short as 12 days to as long as 82 days, a difference of more than two months.

Health Quality Ontario Analysis

According to Health Quality Ontario's annual report on the health system's performance, released in November 2014, the gap between the best-performing and worst-performing LHIN could prove significant, as shown in **Figure 8**. The following examples demonstrate that in 2012/13 (the most recent fiscal year for which information was available at the time of our audit), Ontarians were not always receiving health care in the most appropriate setting:

- For every 100,000 people, there was an average of 246 cases of hospitalization for medical conditions that could be managed outside the hospitals where it would be less costly. The LHIN with the least frequent hospitalizations that year had 159 cases per 100,000 people, while the LHIN with the most frequent hospitalizations had almost three times as many cases (436 per 100,000 people).
- Ontarians waited 111 days, on average, to be admitted from their home in the community (such as their own home or supportive housing) to a long-term-care home. At one LHIN they waited an average of 53 days, while at another they waited four times as long, an average of 219 days. The long wait time can be affected by the size of the wait list and existing bed supply.
- Ontarians waited 65 days, on average, to be admitted from a hospital to a long-term-care home. But people in one LHIN only waited, on average, 33 days, while people in another LHIN waited almost five times as long, for an average of 152 days. Again, the long wait time can be affected by the size of the wait list and existing bed supply.

Canadian Institute for Health Information Analysis

According to CIHI's April 2015 report on wait times in Canada, there was "considerable variation" among the six LHINs that serve Toronto and its surrounding areas with respect to hip replacements and knee replacements in the period between April and September 2014. These examples show that the accessibility to similar health services varies from one LHIN to the next, even within a single large urban region with similar population sizes and health-care infrastructure.

We used the annual data for the period ending March 31, 2015 that we obtained from the Ministry, which produced the same variance pattern as observed in the CIHI six-month data from 2014:

- The best-performing LHIN in the Toronto area provided hip-replacement surgeries within the expected time frame of 182 days for 97% of its patients; the worst-performing LHIN met this expected time frame for only 49% of its hip-replacement patients.
- The best-performing LHIN in the Toronto area provided knee-replacement surgeries within the expected time frame of 182 days for 95% of its patients; the worst-performing LHIN met the target time frame for only 44% of its knee-replacement patients.

We expanded the CIHI observation to areas outside the Toronto area, and noted regional disparities in other neighbouring LHINs in the year ending March 31, 2015. For example:

Figure 8: Performance of Best- and Worst-performing LHINs According to Health Quality Ontario Indicators,* 2012/13 and 2013/14

Source of data: Health Quality Ontario

		Actual Performance		
Indicators Where Performance by LHIN Published	**Period Covered**	**Best-performing LHINs**	**Worst-performing LHINs**	**Provincial Results**
% of home-care patients with complex needs who received first personal support visit within 5 days of authorization to receive such services	2013/14 3^{rd} quarter	94.5%	60.5%	84.0%
% of people able to see primary care provider on the same day or next day when they were sick	2013	54.2%	29.2%	45.3%
% of people reported difficult or somewhat difficult in getting access to care on evening or weekend without going to emergency department	2013	42.9%	68.2%	53.7%
Median number of days to admit to a long-term-care home from hospital	2012/13	33 days	152 days	65 days
Median number of days to admit to a long-term-care home from home	2012/13	53 days	219 days	111 days
Hospitalizations for medical conditions that can potentially be managed outside the hospitals per 100,000 people	2012/13	159	436	246
30-day readmission rates following hospitalization for medical diagnoses	2012/13	12.0%	14.5%	13.5%
30-day readmission rates following hospitalization for surgical diagnoses	2012/13	5.8%	8.0%	7.0%

* These performance indicators are different than those used by the Ministry of Health and Long-Term Care.

- In two neighbouring LHINs in the south, while 96% of patients living in one LHIN waited within the targeted 182 days for hip replacement surgery, patients living in the other LHIN were less fortunate—only 50% accessed hip replacement surgery within the targeted wait time (provincially, 86% of patients accessed hip replacement surgery within 182 days).
- 30% of repeat emergency visits were made by Ontarians with substance abuse conditions within 30 days of their first emergency visits. In two neighbouring LHINs in the north, patients in one LHIN experienced a similar return rate as the average Ontarian, but the return rate was higher in the other LHIN, at 40%.

4.1.4 Performance Gaps among LHINs Have Widened over Time

The Ministry has a goal of reducing the performance gap among LHINs over time so that the level of health service does not vary significantly across the province. However, the Ministry has not indicated what degree of variation it would consider acceptable in each of the performance areas, nor has it set timelines for bringing the performance gaps to acceptable levels.

We examined the performance gap among LHINs from the year ending March 31, 2012, through the year ending March 31, 2015, and found that the gap actually increased in 10 of the 15 performance areas, as shown in **Figure 9**. (We began measuring as of the 2011/12 fiscal year because seven of the 15 performance areas were introduced by the Ministry only in 2010/11.)

Figure 9: Areas Where Performance Gaps among LHINs Widened between 2011/12 and 2014/15

Sources of data: Cancer Care Ontario, Cardiac Care Network of Ontario, Ministry of Health and Long-Term Care

	Year Ending March 31, 2012			Year Ending March 31, 2015		
Performance Area	Worst-performing LHINs	Best-performing LHINs	Factor by Which the Best-performing LHIN Outperformed the Worst-performing LHIN	Worst-performing LHINs	Best-performing LHINs	Factor by Which the Best-performing LHIN Outperformed the Worst-performing LHIN
90th percentile wait time for cataract surgery—semi-urgent (days)	194	41	4.7	609	20	30.5
90th percentile wait time for cancer surgery—urgent (days)	45	14	3.2	108	14	7.7
90th percentile wait time for cardiac by-pass procedures—semi-urgent (days)	39	15	2.6	93	13	7.2
90th percentile wait time for CCAC in-home services (days)	64	20	3.2	82	12	6.8
90th percentile wait time for cardiac by-pass procedures—urgent (days)	15	5	3.0	20	5	4.0
90th percentile wait time for cardiac by-pass procedures—non-urgent (days)	58	23	2.5	117	29	4.0
90th percentile wait time for cataract sugery—urgent (days)	173	33	5.2	187	30	6.2
90th percentile wait time for CT scan—semi-urgent (days)	42	14	3.0	39	11	3.5
90th percentile wait time for CT scan—non-urgent (days)	68	28	2.4	66	20	3.3
90th percentile wait time for hip replacement surgery—non-urgent (days)	323	133	2.4	337	133	2.5
Alternate level of care (ALC) days during hospital stay (%)	27	10	2.7	23	7	3.3
90th percentile emergency room length of stay for admitted patients (hours)	45	24	1.8	35	17	2.0
90th percentile emergency room length of stay for non-admitted complex patients (hours)	8	7	1.3	8	6	1.4
Repeat unplanned emergency visits within 30 days for mental health conditions (%)	25	14	1.7	27	15	1.8

For instance, for the year ended March 31, 2012, patients in the worst-performing LHIN waited 194 days or five times that of the best-performing LHIN (41-day wait) to receive semi-urgent cataract surgery. Three years later, this performance gap widened from five times to 31 times.

The Ministry needs to better understand the reasons for the widening gap in the performance of LHINs so it can take appropriate action to reduce the gaps. If it is the case that better-performing LHINs are adopting better practices, they need to be identified and shared with other LHINs. If it is the case that poorly performing LHINs are experiencing growing obstacles to account for the worsening performance, those obstacles need to be identified and overcome. We discuss this further in **Section 4.2.3**.

RECOMMENDATION 1

To minimize the differences in health service performance among Local Health Integration Networks (LHINs) across the province, the Ministry of Health and Long-Term Care, in conjunction with the LHINs, should:

- analyze the reasons for the widening gap in the performance of LHINs in key performance areas;
- establish the degree of variation it would consider acceptable among LHINs' performance in each measured performance area; and
- set timelines for bringing the performance gaps among LHINs to acceptable levels.

MINISTRY RESPONSE

The Ministry accepts this recommendation and will continue to work with the LHINs to understand performance issues across the province.

The LHIN performance indicators and targets are set out in the Ministry-LHIN Accountability Agreement. Through the agreement process, the Ministry and LHINs will determine the level of variation against the targets that would be acceptable and timelines to address performance gaps.

The Ministry and the LHINs have recently completed a refresh of performance indicators and targets to guide joint work in 2015-2018, with annual opportunities for updates. The Ministry and the LHINs expect to use quarterly reviews of performance indicator data to identify shared priorities for provincial strategies, investments and initiatives that would be of benefit to all patients in all LHINs.

4.2 None of the LHINs Were Able to Meet All Performance Targets and the Ministry Could Do More to Help LHINs Improve Their Performance

According to the Memorandum of Understanding between the Ministry and each of the 14 LHINs, in effect from 2012 to 2017, the Minister can take action, or direct LHINs to take action, to correct their administrative or operational weaknesses. Similarly, the Ministry–LHIN accountability agreement states that the Minister can propose remedies to help improve LHIN performance.

In practice, when LHINs do not perform according to expectations, the Ministry takes a collaborative approach, working with LHINs to identify issues and determine next steps to improve performance. Although there may be valid reasons for this approach, it has often resulted in performance shortfalls continuing year-after-year.

One factor contributing to LHINs' varying performance is that the Ministry has negotiated different targets for each LHIN to achieve in the 15 performance areas. We noted that while targets for selected health conditions were developed based on evidence, others are not. Instead, they are based on their previous-year's performance and local challenges.

Another hindrance is the fact that LHINs do not manage the primary-care sector. If primary care is not available or if the actions of primary-care providers such as family physicians do not align with LHIN actions, LHINs may be hindered in their efforts to achieve ministry targets and expectations.

Further, neither the Ministry nor the legislation has a definition of what constitutes a fully integrated health system, making it unclear whether the integrated health service plans they develop every three years will help them achieve the end goal of providing that integrated health system.

We look at the above issues in detail in the following subsections.

4.2.1 LHINs Did Not Meet All Performance Indicator Targets

None of the 14 LHINs have ever met all of the targets and expectations in the 15 areas of performance for measuring the effectiveness of LHINs, as defined by the Ministry-LHIN accountability agreements. These areas include indicators that measure access to selected health services, co-ordinated health care and readmission patterns of patients with selected health conditions. The complete list of the 15 performance areas is in **Figure 4**.

In the year ending March 31, 2015, the best-performing LHIN met performance targets in 10 areas; the worst-performing LHINs (there were four) met four. LHINs on average achieved the targets for six of the 15 performance areas, as shown in **Figure 10**.

In that year, LHINs overall were performing well in the area of providing timely access to cancer surgeries and cardiac by-pass procedures. In all but two LHINs, at least 90% of their patients accessed cancer surgery within 84 days. In eight of the nine LHINs that offer cardiac by-pass procedures, almost all of their patients accessed these procedures within 90 days. However, it is Cancer Care Ontario, a provincial government agency, that is primarily responsible for planning and allocating resources for cancer surgery and works with health service providers in every LHIN to improve cancer care for the people they serve.

On the other hand, most LHINs were unable to meet expected levels of performance in the areas of too many readmissions to health facilities, too many emergency-room return visits, long wait times at the emergency room, and long wait times for MRI scans for certain patient populations. In the year ending March 31, 2015, at least 12 of the 14 LHINs performed below targeted levels in the following critical areas:

- *Repeat unscheduled emergency visits for patients with mental-health or substance abuse conditions within 30 days of a prior visit.* According to the Ministry, the main reason for these recurring emergency visits is lack of effective and available community-based services upon discharge.
- *Readmission to any health-care facility of select groups with similar clinical characteristics for non-elective inpatient care within 30 days of discharge.* Selected groups display one or more of the following seven conditions—stroke, chronic obstructive pulmonary disease, pneumonia, congestive heart failure, diabetes, cardiac, and gastro-intestinal disorders. Many of the patients with these conditions were readmitted to hospitals but their conditions could have been managed elsewhere. According to the Ministry, readmission rates are important indicators of quality of inpatient and post-discharge care. Poor performance in this area demonstrates that discharge planning and post-discharge care need improvement, especially for frail patients and patients with complex, multiple diseases or conditions.
- *Patients who were ultimately admitted to hospital having stayed beyond a defined duration (ranging from 8 hours to 30.6 hours, depending on the LHIN) in the emergency room.* One reason for this occurrence is that patients with multiple, complex medical conditions often require higher-intensity assessments and diagnoses. Another reason is that patients who no longer require hospital care were not discharged quickly enough and were occupying hospital beds, as demonstrated by the higher-than-targeted ALC rate reported in the province.

Figure 10: Performance in Achieving LHIN-specific Targets for 15 Performance Areas, by LHIN, Year Ending March 31, 2015

Source of data: Ministry of Health and Long-Term Care

Local Health Integration Network	Performance Area* 1 (hours)	2 (hours)	3 (hours)	4 (%)	5 (%)	6 (%)	7 (%)	8 (%)	9 (%)	10 (%)	11 (%)	12 (days)	13 (%)	14 (%)	15 (%)	# of Indicators Where LHIN-specific Target Met
Central West	34.42	7.07	3.50	93.55	n/a	89.20	49.08	44.31	15.20	85.21	6.92	18	15.66	25.16	25.77	4
Hamilton Niagara Haldimand Brant	34.67	7.30	4.50	86.89	100	85.39	81.91	76.44	45.96	77.09	17.62	23	16.44	18.84	26.64	4
North East	32.22	5.57	3.95	87.43	99	91.11	76.14	71.52	47.34	71.27	22.56	76	18.74	17.24	29.42	4
North West	31.37	6.77	3.88	95.26	n/a	94.44	75.54	64.20	50.08	79.35	21.39	35	17.24	16.83	40.65	4
Erie St. Clair	24.37	6.88	4.00	96.98	n/a	97.10	84.91	78.93	27.31	96.17	18.22	16	16.28	17.24	23.50	5
North Simcoe Muskoka	27.20	6.20	3.95	98.38	n/a	94.10	91.64	88.65	11.10	59.65	21.25	82	15.97	15.33	23.43	5
Waterloo Wellington	17.45	6.33	4.23	98.41	100	95.11	89.34	86.46	37.75	70.41	12.47	12	16.05	15.05	23.20	5
Mississauga Halton	34.60	6.12	3.58	96.25	99	95.83	97.02	80.41	21.12	51.35	12.27	28	15.32	16.35	25.13	6
South East	27.22	6.70	4.28	96.71	99	93.54	50.00	78.97	51.47	94.71	13.97	23	16.69	22.20	25.00	6
South West	25.30	6.32	3.62	91.28	100	89.13	77.76	79.19	28.83	73.32	8.93	21	17.20	17.63	19.62	7
Toronto Central	26.60	7.75	4.47	94.40	99	90.09	88.17	94.25	41.32	59.09	9.63	25	18.79	27.18	40.60	7
Central East	31.30	6.08	4.02	97.22	n/a	98.13	96.57	95.28	55.00	91.54	15.75	23	16.22	19.78	23.97	8
Champlain	26.93	7.60	4.52	97.59	78	89.94	87.49	89.22	35.98	75.66	11.83	56	16.39	17.51	26.43	8
Central	32.70	6.53	3.43	99.75	99	99.69	96.42	95.32	38.50	88.71	14.40	28	15.50	17.60	23.62	10
Average																**6**
Total # of LHINs That Met Local Target	**0**	**10**	**8**	**12**	**8**	**10**	**5**	**4**	**2**	**5**	**5**	**9**	**2**	**2**	**1**	

* Refer to list of performance areas in Figure 4.

Grey-shaded boxes indicate LHINs met their respective local, LHIN-specific targets in the year ending March 31, 2015.

- *Patients having to wait for 28 days or more for a non-urgent MRI scan.* Most LHINs faced challenges in ensuring patients receive MRI scans within 28 days. The four LHINs we visited noted that they were unable to meet the increasing demand with the existing resources. We examined whether hospitals in these four LHINs met the targeted wait time for non-urgent MRI scans in 2014/15 (the Ministry did not measure LHINs' performance in wait time for urgent MRI scans in 2014/15), and noted that within individual LHINs, some hospitals could better meet the targeted wait times than others, indicating that there are opportunities for improvement for LHINs to better manage capacity and demand across the region.

4.2.2 Performance Issues Persist in Some LHINs

Some LHINs have had limited success in meeting expected levels of performance over long periods of time. Inability to meet performance targets on an ongoing basis means that patients in these LHINs are continuously short-changed when it comes to accessing quality health care in a timely manner. For instance, one of the four LHINs we visited did not meet the annual wait-time target for MRI scans in six of the eight years ending March 31, 2015. Another LHIN that we visited did not meet its annual hip-replacement wait-time target in seven out of the last eight years. In both cases, the initiatives that the LHINs implemented could not resolve the performance shortfall. The Ministry has a responsibility to hold LHINs accountable to their performance. When we asked the Ministry what it had done to ensure these LHINs perform better, it indicated that its role would be to continue monitoring the LHINs' performance, request updates on performance-improvement initiatives implemented by LHINs to address specific performance challenges, and work with LHINs to develop and implement strategies for improvement.

Underserved Rural and Northern Communities a Long-standing Performance Issue

In another example, we noted at one of the LHINs we visited that both the Ministry and the LHIN still have not acted on their previous commitments to address the long-standing challenges of providing health services in rural and northern communities.

Many studies have identified that health-care needs in the north and other rural areas are not adequately met. For instance:

- In December 2010, a Ministry-appointed panel on rural and northern health care noted that there was a lack of community-based health services available in rural areas. As a result, patients were admitted to hospital even for conditions that in urban areas would be cared for in "ambulatory settings" (where the patient is treated only as an outpatient at a hospital or at a clinic).
- In 2012 and again in 2015, the Ontario Hospital Association noted that rural and northern communities have insufficient home- and community-care services.

One LHIN we visited had identified in 2006 that the current and future role of its small community hospitals needs to be further defined to better meet the needs of residents. At the time of our audit, this LHIN was still in the process of developing a regional strategy to better support the delivery of services in its communities.

The Ministry noted in 2007 that it would develop a provincial plan on health-care needs in rural and northern communities to support improved access to health care in these areas. At the time of our audit, the Ministry still had not developed this plan but had, in the year ending March 31, 2013, established a four-year, $80-million fund for small and rural hospitals. Its aim is to strengthen linkages with community care and help hospitals and community care providers operate as integrated networks. By March 2015, a total of about $61 million was distributed by the Ministry to 65 rural hospitals, mostly towards technology projects, such as the establishment of an information management system and facilitation of electronic health records. An external consultant completed a review of this fund in March 2015 and noted that some funded projects did not demonstrate any quantitative benefits. As such, the consultant suggested that the Ministry and participating LHINs standardize the reporting of these projects to capture information such as planned milestones, expected outcomes and project progress.

RECOMMENDATION 2

To help ensure that patients across the province receive targeted levels of care, the Local Health Integration Networks should better manage capacity and demand for community-based services and MRI scans within their individual regions.

RESPONSE FROM LHINs

LHINs acknowledge the need to be strong leaders in managing local resources, continuing to build capacity and strengthen system sustainability. However, the LHINs recognize they have limitations in managing demand for services. These are influenced by external factors outside of the LHINs' scope, such as demographic changes, population health needs, changing technologies and practices.

LHINs fully support the Ministry's vision of creating a patient-centred system of care, as articulated in *Patients First : Action Plan for Health Care* (February 2015) and *Patients First: A Road Map to Strengthen Home and Community Care* (May 2015). Currently, disparities exist across the province in the capacity of home and community providers, and the availability of health human resources to meet demands. Inequities and challenges need to be addressed by LHINs, which will work in partnership with the Ministry and their health service providers to better manage current and future demands on the system. With our aging population, demands on home and community care services, as well as demands on resources, will continue to grow.

LHINs endorse the need to ensure Ontarians who require MRIs receive timely access to this diagnostic service. LHINs have no ability to control the demand for MRIs; however, they have worked and will continue to work with hospitals to improve utilization and efficiency. LHINs will also continue to work closely with their hospitals and the Ministry in the efforts to implement best practices, as well as address geographic and other challenges associated with MRI access.

RECOMMENDATION 3

To help ensure that patients across the province receive consistent levels of care, the Ministry of Health and Long-Term Care should:

- ensure that capacity and demand for community-based services and MRI scans are managed province-wide with consideration to existing resources; and
- develop the provincial plan on health-care needs in rural and northern communities according to its commitment in 2007.

MINISTRY RESPONSE

The Ministry accepts this recommendation and is implementing strategies to manage capacity and demand for community-based services. For example, Access to Care at Cancer Care Ontario is developing an MRI capacity planning tool designed to advise the Ministry on LHIN capacity and need for MRI services. The tool considers wait time, population growth and existing services and will be used to support MRI services based on provincial need.

The Ministry also recognizes the unique challenges faced by rural and northern health service providers and facilities. The Ministry is committed to ensuring that health-care needs in rural and northern communities are met through greater integration and locally governed services.

Hospitals in rural Ontario, in collaboration with the Ontario Hospital Association and the LHINs, have been working with the Ministry to assess opportunities to create rural health hubs. Rural health hubs would provide access to services across the care continuum for a defined population. In May 2015, the Ministry announced the intent to pursue this model, and work is underway to identify early sites.

4.2.3 Ministry Needs Better Oversight of LHINs

Every quarter, the Ministry reviews performance data submitted by the LHINs and meets with representatives of three or four LHINs at a time to ensure it meets with all 14 LHINs once over a 12-month period. At these meetings, the LHINs present the initiatives they have taken or plan to take to address their performance gaps. The Ministry and the LHINs hold other meetings throughout the year for the purpose of sharing information and discussing various programs, rather than focusing on performance issues.

The Ministry indicated that it encourages LHINs to find their own solutions to performance problems. It has sometimes suggested that LHINs refer to best practices to find efficiencies. We found that while the Ministry has provided support to LHINs in searching for best practices, it could be more directive in its approach.

Such an approach could help prevent performance issues from persisting at some LHINs, as noted in **Section 4.2.2**.

For example, the best-performing LHIN that consistently provides timely access to cataract surgeries, established an internal committee in April 2007 to oversee and implement a plan for improving access to eye surgeries in the region. The Ministry recognized these positive steps but did not require other LHINs, particularly those underperforming, to adopt similar practices. One LHIN in which patients consistently experienced the least timely access to cataract surgeries did not plan and monitor access to these surgeries across the entire LHIN, limiting its efforts only to individual health facilities, until 2014 when it established an internal committee to oversee a vision care plan that applies to the entire LHIN area to better meet cataract surgeries access expectations. Although this strategy has not appreciably improved the LHIN's cataract surgery wait time results so far, if the Ministry had requested the LHIN to refocus its strategic planning and had made it aware of the practices used by the other LHIN, a suitable solution to the performance gap could potentially have been identified sooner.

We found that while the four LHINs we visited used problem-solving approaches like root cause analysis to help analyze the underlying cause of under-performance, these approaches were not used in all cases. Nor did the Ministry actively promote the use of such approaches.

The Ministry could do more to ensure underperforming LHINs set reasonable time frames to address underlying issues, and hold them accountable to those timelines.

Health service providers and current and former LHIN board members and CEOs we surveyed also felt that the Ministry could do more to hold LHINs accountable in their performance. Almost two-thirds of them felt that the Ministry needs to better address the underlying reasons for why LHINs could not meet their performance targets, identify and roll out best practices or leading models (we discuss this in **Section 4.4.3**), and develop service standards for common areas (we discuss this in **Section 4.4.4**). Further, only one-third of the health service providers felt that the Ministry is effective in setting the overall direction of the health system, compared to 55% of the current and former LHIN board members and CEOs who felt similarly.

RECOMMENDATION 4

To ensure Local Health Integration Networks (LHINs) perform at desired levels, the Ministry of Health and Long-Term Care, in conjunction with the LHINs, should:

- communicate best practices observed in well-performing LHINs to LHINs that need intervention so the latter can identify potential solutions to performance shortfalls;
- assist LHINs in analyzing the root causes of performance gaps and determining appropriate action to address ongoing issues; and
- require LHINs to establish reasonable timelines to address performance gaps and monitor their progress accordingly.

MINISTRY RESPONSE

The Ministry accepts this recommendation and will continue to work with LHINs on performance, performance gaps and timelines.

The Ministry notes that LHINs have established and spread leading practices by identifying priorities and solutions that are important to their local communities and providers. Examples such as integrated lab systems, vision care strategies, centralized intake and assessment for orthopedics, stroke rehabilitation strategies and mental health integration have all been led by individual LHINs, with adoption by others. Against this backdrop is a strong history of provincial strategies, such as those led by Cancer Care Ontario, the Cardiac Care Network and the Ministry, including the palliative care and the diabetes strategies, all of which have been supported by LHINs and their providers for implementation. LHINs have collaborated to initiate common provincial strategies for shared priorities, such as the Rehabilitative Care Alliance. The Ministry is fully aware and supportive of these LHIN-led initiatives and actively identifies leading LHIN practices to other LHINs.

To assist the LHINs with analyzing root causes of performance gaps, the Ministry will continue to provide data, analytics and policy research to LHINs and regularly seek advice from them on provincial priorities and strategies to determine appropriate action to address ongoing issues. LHINs themselves meet regularly to collaborate on common challenges and solutions. LHIN performance data is fully available to all LHINs for review and collaboration.

The Ministry will continue to foster community of practice and will work with the LHINs to establish reasonable timelines to address performance gaps and monitor progress.

4.2.4 Some Performance Targets Not Evidence-based and Vary Significantly

While targets for selected health conditions were developed based on scientific literature, others are not evidence-based—that is, they are not based on known best practices. Instead, they are set according to results of previous years at the individual LHINs, and to local challenges. This practice has resulted in considerable differences among LHINs' targets. Figure 7 shows the range of LHIN-specific targets for all 11 performance areas in the year ending March 31, 2015. For example, targeted wait time for CCAC home care ranged from 17 days in one LHIN to 66 days in another, and targeted duration for a patient waiting in an emergency room who was ultimately admitted to hospital ranged from eight hours in one LHIN to 30.6 hours in another.

We also found that the response to challenges differed from one LHIN to the next. Specifically, when an expected performance was not achieved in one year, for some LHINs the target became more lax; for other LHINs, the target stayed the same or became more stringent. For instance, of the seven LHINs that could not meet their respective ALC performance targets between 2011/12 and 2014/15, the Ministry lowered the target for five LHINs (for instance, from 17% to 22% ALC days in one LHIN), and either tightened or maintained the target for the remaining two. The Ministry indicated that it sets these revised targets jointly with LHINs to account for local circumstances and challenges.

4.2.3 Ministry Revising and Establishing New Performance Measures to Evaluate LHIN Performance

The 15 performance areas for which LHINs are accountable measure, for the most part, hospital performance more than they measure the LHINs' performance as planners, funders and integrators of their local health systems. Both the Ministry and the LHINs have acknowledged this. **Figure 12** shows how performances in individual health sectors are attributed (and in some cases, not attributed) to LHINs' performance.

In December 2016, the Ministry directed an Indicators Advisory Group comprising representatives of the LHINs, the Ministry, and Health Quality Ontario to review current indicators and determine whether new indicators should be developed. These indicators, which the advisory group finalized in August 2017, were subsequently included in the 2015–2018 Ministry–LHIN accountability agreement. **Figure 13** shows the new indicators. Some of these indicators relate to the performance of non-hospital sectors and the co-ordination of health services in the local health system—these areas have never been measured before.

Figure 12: Health Performance Measurement and Accountability, from Health Service Providers to LHINs to the Ministry

Prepared by the Office of the Auditor General of Ontario based on information provided by the Ministry of Health and Long-Term Care

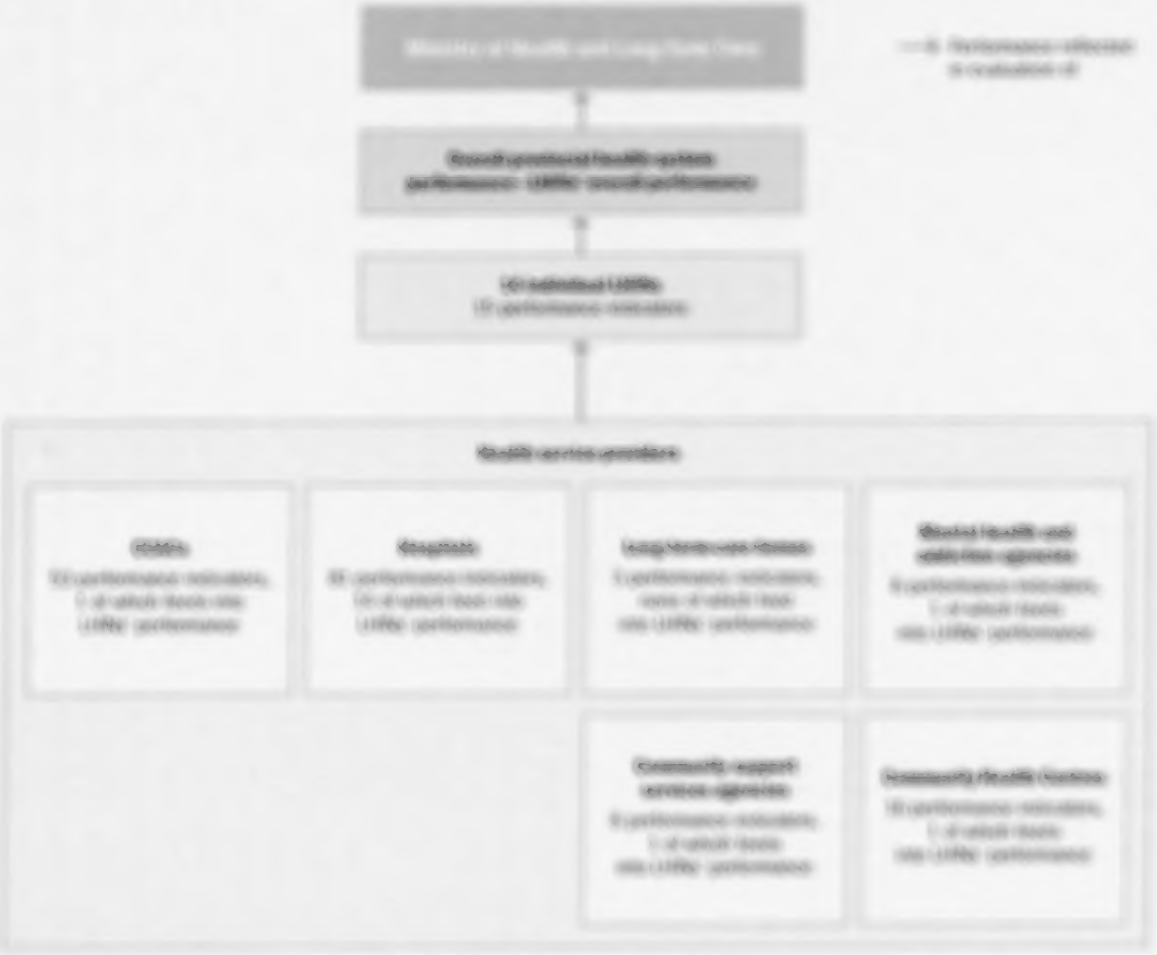

→ Performance reflected in evaluation of
Ministry of Health and Long-Term Care
Overall provincial health system performance = LHINs' overall performance
14 individual LHINs
15 performance indicators
Health service providers
CCACs
[illegible] performance indicators, [illegible] of which feed into LHINs' performance
Hospitals
[illegible] performance indicators, [illegible] of which feed into LHINs' performance
Long-term-care Homes
[illegible] performance indicators, none of which feed into LHINs' performance
Mental health and addiction agencies
[illegible] performance indicators, [illegible] of which feeds into LHINs' performance
Community support services agencies
[illegible] performance indicators, [illegible] of which feeds into LHINs' performance
Community Health Centres
[illegible] performance indicators, [illegible] of which feeds into LHINs' performance

Figure 12: New Indicators Used to Measure LHINs' Performance, 2015–2018

Source of data: Ministry of Health and Long-Term Care

Indicators in the 2013–2015 Ministry-LHIN Performance Agreement	
1	% of Alternate Level of Care days
2	90th percentile wait time for CCAC in-home services—application from community setting to first CCAC service (excluding case management)
3	Repeat unscheduled emergency visits within 30 days for mental health conditions
4	Repeat unscheduled emergency visits within 30 days for substance abuse conditions
Expansion of the Current Indicators	
5	% of priority 2, 3 and [illegible]s completed within access target for cancer surgery
6	% of priority 2, 3 and 4 [illegible]es completed within access target for cardiac by-pass surgery
7	% of priority 2, 3 and 4 cases completed within access target for cataract surgery
8	% of priority 2, 3 and 4 cases completed within access target for hip replacement
9	% of priority 2, 3 and 4 cases completed within access target for knee replacement
10	% of priority 2, 3 and 4 cases completed within access target for MRI scans
11	% of priority 2, 3 and 4 cases completed within access target for CT scans
12	Readmission within 30 days for selected HBAM inpatient group (HIG) conditions*
New Indicators	
13	% of acute-care patients who have had a follow-up with a physician within 7 days of discharge
14	% of home-care clients with complex needs who received their personal support visit within 5 days of the date that they were authorized for personal support services
15	% of home-care clients who received their first nursing visit within 5 days of the date they were authorized for nursing services
16	% of palliative-care patients discharged from hospital with home support
17	90th percentile emergency department length of stay for complex patients
18	90th percentile emergency department length of stay for minor/uncomplicated patients
19	Alternate Level of Care rate
20	CCAC wait times from application to eligibility determination for long-term-care home placement (from community setting and from acute-care setting)
21	Hospitalization rate for ambulatory care sensitive conditions
22	Overall satisfaction with health care in the community
23	Rate of emergency visits for conditions best managed elsewhere

* Health Based Allocation Model (HBAM) inpatient group (HIG) conditions include acute myocardial infarction, cardiac conditions, congestive heart failure, chronic obstructive pulmonary disease, pneumonia, diabetes, stroke and gastrointestinal disease.

Some of the new indicators are also measured by the Canadian Institute for Health Information, and some are similar to those used to evaluate the performance of regional health authorities in other countries and selected Canadian provinces. However, we also identified additional indicators used in those jurisdictions that Ontario has not yet proposed. For instance, one British Columbia health authority measures the proportion of those aged 75 years or more who receive home-care services to assess whether it is meeting the goal of keeping people at home for as long as appropriately and safely possible. As well, the single health authority in Alberta measures whether people access supportive living or long-term care within 30 days of the date they were assessed and approved for placement.

Further, the Ministry noted in a 2004 submission to Cabinet that it expects LHINs to achieve a number of outcomes and benefits in four years, including reducing health costs, integrating and co-ordinating programs and services to emphasize disease prevention and health promotion, and distributing health services equitably across the province. However, the Ministry had not measured any of these anticipated outcomes.

Fully measuring LHINs' performance in all their mandated activities and expected outcomes, and setting evidence-based targets for these performance areas, can help the Ministry better measure whether each of the 14 LHINs has been effective in providing for an integrated local health system.

RECOMMENDATION 5

To ensure that Local Health Integration Networks (LHINs) are assessed objectively and comprehensively on their operational effectiveness and for all health sectors that they manage, the Ministry of Health and Long-Term Care should:

- develop LHIN-specific performance targets that reflect current evidence-based benchmarks; and
- examine the appropriateness of including additional performance indicators not currently in those recommended by the Indicators Advisory Group and finalize the implementation of the performance indicators that measure non-hospital-sector performance as well as co-ordination of health services.

MINISTRY RESPONSE

The Ministry supports this recommendation. As part of the 2015–18 Ministry–LHIN Accountability Agreement, which was developed collaboratively between the Ministry and the LHINs, provincial performance targets have been set for all performance indicators; there are no longer LHIN-specific performance targets. Evidence-based targets have been set, where possible. LHINs are expected to demonstrate progress toward achieving the targets by the end of the three-year term of the agreement. Where provincial targets are not based on evidence, the Ministry will work toward identifying targets that are based on known best practices.

During the course of the Auditor General's audit, as part of the Ministry's regular review, a number of non-hospital indicators were added to the list of indicators (including home and community care, palliative care, patient satisfaction and primary care). The Ministry, in partnership with the LHINs, will review indicators on a yearly basis and modify as appropriate. The Ministry and LHINs will also evaluate the addition or creation of new indicators to reflect emerging priorities.

4.2.6 LHINs' Performance Is Also Influenced by Factors Not within LHIN Control

The LHINs we visited told us that sometimes they can do little to improve performance in certain areas because they cannot control patients' preferences and physicians' practices.

For instance, patients will experience longer wait times if they are referred to health service providers that other physicians habitually refer patients to or whom patients simply prefer. In light of this reality, there is little a LHIN can do to improve its wait-time performance.

Under the Act, LHINs do not oversee primary care (that is, the day-to-day health care provided most commonly by family physicians). The lack of control in this area is impacting their performance in areas such as the three emergency room length-of-stay indicators (areas 1, 2 and 3 in **Figure 4**). If a patient's family physician is not available on the weekend or cannot see a patient within one or two days of the patient trying to book an appointment, the patient is more likely to seek help in an emergency room or walk-in clinic.

Some external advisers to the government have recommended that primary care be included in the LHINs' mandate. For example, in March 2015, a report from a government expert group on home and community care, *Bringing Care Home*, noted that primary care is still somewhat disconnected from other dimensions of home and community care, particularly in remote and rural communities. The report indicated that unless primary care and home and community care are well aligned, the latter will be unable to transition to a high-performing system. According to the report, one key way of achieving this transformation is for LHINs to manage the delivery of primary care. Similarly, in 2012, the report of the *Commission on the Reform of Ontario's Public Services* (commonly known as the Drummond Report) recommended that all health services in a region, including primary-care physician services, be integrated under the LHINs.

According to our survey results, a greater proportion of current and former LHIN board members and CEOs felt that LHINs can still be effective managers even without having responsibility over primary care versus those that felt the opposite. Their opinions were in stark contrast to those of the health service providers—a greater proportion of them felt that LHINs cannot be effective managers even without having responsibility of primary care versus those who felt the opposite.

The Ministry noted that it is considering various reports regarding provision of primary care, and is working with all partners to improve how primary care is provided in Ontario.

RECOMMENDATION 6

To better meet Local Health Integration Networks (LHINs)' mandate of integrating local health systems, the Ministry of Health and Long-Term Care should determine how best LHINs can manage the primary-care sector.

MINISTRY RESPONSE

The Ministry accepts this recommendation and will examine ways the LHIN role in primary care can be strengthened as part of ongoing efforts to support the government's vision for an integrated health system.

4.2.7 "Integrated Health System" Remains Undefined and No Timeline Set to Achieve It

The Act mandates that each LHIN is responsible to "provide an integrated health system," and LHINs develop three-year strategic plans to that end. However, neither the *Local Health System Integration Act, 2006* nor the Ministry has provided a clear definition of what would constitute a fully integrated health system, or when it is to be achieved. Over half of the health service providers and 44% of the current and former LHIN board members and CEOs who responded to our survey felt that the Ministry has not defined what an "end-state" integrated health system will look like. As well, over half of all respondents noted that the Ministry had not specified when a fully integrated health system is to be achieved.

LHINs develop three-year strategic plans called Integrated Health Service Plans that outline proposals and priorities for their local health system, toward providing an integrated health system. But without a clear picture of what that system looks like, it's difficult for LHINs to know whether implementing their proposed initiatives will in fact lead to that result. The Ministry is also unable to determine to what extent individual LHINs and LHINs as a whole are progressing toward providing an integrated health system.

Until the concept of a fully integrated health system is clearly defined, the Ministry can assess LHINs' progress in meeting the provincial targets it has established for 11 of the 15 performance areas. As shown in **Figure 7**, these targets represent long-term performance goals, and differ from the unique LHIN-specific targets discussed in **Section 4.2.4**. However, as noted in **Section 1.3.2**, there are no provincial targets set for four performance areas. Of the 11 areas that do have provincial targets, using overall provincial results in the year ending March 31, 2015, the targets were achieved in only four areas.

We discuss these issues in the following subsections.

Progress Made in LHINs' Three-year Strategic Plans Not Always Assessed

The LHINs we visited did not assess if the goals described in their three-year strategic plans were effective in bringing them closer to a fully integrated health system. The Memorandum of Understanding between the Ministry and LHINs states that the LHIN boards are responsible for developing measures to monitor and assess the performance of LHINs. However, three of the four LHINs did not establish any quantifiable targets or performance measures for their stated goals and strategies, so there is no formal assessment on how their work helps them progress toward a fully integrated local health system. For example, one LHIN had a goal of reducing the percentage of palliative patients dying in acute care beds. But it did not specify how much the reduction should be and when the reduction should be realized. The LHIN uses other methods to demonstrate progress, including presenting success stories in its annual reports. The fourth LHIN only developed performance measures for its strategies, with targets to meet, in its most recent three-year plan covering 2013 to 2016.

The lack of quantifiable targets in integrated health service plans may explain the following survey result: only one in five health service providers who responded to our survey felt that LHINs are on track to achieving the goals in their strategic plans, compared to almost 80% of the current and former LHIN board members and CEOs.

Provincial Targets Serve as Longer-term Goals for LHINs to Work Towards

For 11 of the 15 performance areas, the Ministry has established what it calls "provincial targets" that serve as long-term goals for LHINs to work towards (see **Figure 7**). In most cases, these targets are more stringent than the targets the Ministry has negotiated for individual LHINs to meet. For example, the Ministry's provincial target for ALC days is 9.46%, meaning no more than 9.46% of the total days a patient spent in hospital should have been due to them waiting for care elsewhere or to be discharged. Only two LHINs had this specific target to meet. The other 12 LHINs were held to targets that were less challenging than the provincial target for ALC days. Using the overall provincial performance in the year ending March 31, 2015, only four of the 11 provincial targets were met that year. Further, the Ministry has not set any timelines for when all 14 LHINs are expected to meet the 11 provincial targets.

RECOMMENDATION 7

To ensure Ontario benefits from a fully integrated health system in the foreseeable future, the Ministry of Health and Long-Term Care should:

- establish a clear picture of what a fully integrated health system looks like, its milestones and final targets, and timelines for when LHINs should achieve those targets; and
- require that LHINs develop performance measures and targets to meet the goals they propose in their three-year strategic plans, and report on their results.

MINISTRY RESPONSE

The government has articulated its vision for an integrated health system through the *Patients First: (Ontario's) Action Plan for Health Care*; this plan sets out health system priorities including access, equity and quality of care. The Ministry is reviewing input from a variety of sources about options to support and further the government's vision for an integrated health system.

LHINs identify and detail the strategies they will implement to deliver on the government's priorities through their Integrated Health Service Plans (IHSPs). The LHINs' Annual Business Plans build on their IHSPs, as this is where the LHINs are required to demonstrate how they will deliver on the commitments made in their IHSPs, including the identification of performance measures and targets. In addition, LHINs develop Annual Reports that contain a report on the progress of their local health system and performance results to date. Together, these public documents articulate the LHINs' strategic priorities, key initiatives and performance commitments.

The Ministry will work with the LHINs to adopt performance measures and targets to meet the goals they propose in their three-year strategic plans, and report on their results.

4.3 LHINs' Oversight of Health Service Providers Needs Strengthening

LHINs have a responsibility to monitor the performance of hospitals, CCACs, long-term-care homes, community health centres, mental health and addiction agencies, and community support services agencies to ensure patients receive quality health care. To do so, LHINs contract with these health service providers and require them to meet certain performance expectations. We examined how LHINs monitor health service providers and what LHINs do when performance is below expectation. We also reviewed how LHINs ensure complaints about health services are handled and resolved appropriately. At the four LHINs we visited, we found that quality of health services is not consistently monitored, performance information submitted by health service providers is not verified—some of which contained errors—and non-performing health service providers are not always dealt with in accordance with Ministry guidelines. As well, we found that there is no common complaint-management process across LHINs, and LHINs did not always ensure that patient complaints are appropriately resolved.

We look at the above issues in detail in the following subsections.

4.3.1 Service Providers Mainly Report Output Measures Rather than Measures of Services Quality

The service accountability agreements between LHINs and health service providers in the six health sectors generally focus on output volumes such as number of cases, number of visits and number of surgeries. The agreements with hospitals often focus on wait time measures (because a number of the performance areas to which the Ministry holds LHINs accountable relate to wait times). Although LHINs are required to undertake strategies to improve patient care, the quality of health services is seldom measured.

Two of the LHINs we visited took steps in this direction. One required all its health service providers to report on client satisfaction starting in April 2014. The other required all health-service providers in its region to conduct patient satisfaction surveys starting in April 2015. As well, this second LHIN in 2013 required its mental health and addiction agencies and community support service agencies to develop quality improvement plans and submit them to the LHIN. (Health Quality Ontario's requirement for preparing quality improvement plans only applies to all hospitals, long-term-care homes, CCACs, and inter-professional primary care organizations, which include community health centres.) The quality improvement plans document how each health service provider intends to meet its long-term improvement priorities such as patient access to services and patient safety. The other three LHINs we visited followed the Health Quality Ontario requirement and had not expanded the quality improvement plans requirement to the other two sectors. However, we noted that neither LHINs nor Health Quality Ontario ensure that health service providers implement the actions identified in the submitted quality improvement plans.

RECOMMENDATION 8

To help improve patient care and quality of health services, Local Health Integration Networks, in collaboration with Health Quality Ontario, should:

- assess patients' satisfaction with their health service providers and the extent to which they feel they are receiving quality services;
- assess whether a quality improvement plan should be required of all health service providers; and
- ensure health service providers implement the actions contained in the quality improvement plans.

RESPONSE FROM LHINs

In September 2014, the 14 Ontario LHINs and Health Quality Ontario (HQO) signed a *Commitment to Collaboration*, which defines a collaborative relationship between the Crown agencies to promote alignment efforts and accelerate advancement of a high-performing health-care system. Significant work has already been initiated by the LHINs and HQO, and the progress and activities on priority areas are reviewed quarterly by the HQO/ LHIN Partnership Table.

A Patient Experience Measurement Committee, co-chaired by the LHIN CEO Quality Lead and HQO, is developing an inclusive plan to support patient experience measurement for the purposes of quality improvement, public reporting and research, within and across all sectors in Ontario. The secondary goal of the Committee is to make recommendations to HQO and other health system stakeholders about what approaches might be used to develop standards for patient experience measurements in Ontario.

LHINs and HQO are also working together to create an aligned, integrated Provincial Quality Improvement strategy aimed at strengthening the impact of the Quality Improvement Plans and advising on future directions for the Quality Improvement Plans required under the *Excellent Care for All Act*. The opportunities identified within this recommendation will be considered as the work plan is further developed.

4.3.2 Performance Data Submitted by Health Service Providers Not Verified

Neither the Ministry nor the LHINs routinely verify that the information health service providers submit to them is accurate and reliable. Without such verification, the Ministry and the LHINs cannot be certain that health services are being provided as expected, nor can they be assured that significant errors in reporting has not occurred.

The Ministry's Health Data Branch and Health Analytics Branch collect information as reported by health service providers and make it available to the LHINs by uploading it to databases they access. The LHINs we visited said they expected the Ministry had confirmed the information's reliability before making it available to them. But the Ministry told us that LHINs are themselves responsible for ensuring accurate information.

Upon examining the documents that define the roles and responsibilities of the Ministry and the LHINs, we found they both have some role to play in data reporting. According to the accountability agreement between the Ministry and each LHIN:

- the Ministry is to inform health service providers of any data-quality issues; and
- each LHIN is to work with its health service providers to ensure they improve data quality.

However, the agreement does not clearly define who is responsible for ensuring data accuracy. The LHINs we visited noted that the health service providers are obligated under their agreements with the LHINs to report accurate data. Neither the Ministry nor the four LHINs we visited do any verification in this regard.

All four LHINs we visited analyzed data submitted by service providers to identify variances and outliers, and routinely followed up with the respective health service provider regarding any anomalies. However, none of them had visited the health service providers' premises to review even a sample of source documents to ensure submitted data was accurate.

We selected a sample of the performance data that health service providers had submitted to the four LHINs we visited, and verified the information with the health service providers directly. We found that in almost half of the cases, the information submitted by health service providers to the LHINs were not accurate, with some results being exaggerated. For instance, a community support service provider over-reported on the volume in one service area so that it looked like it achieved 84% of the LHIN expected volume when in fact it only achieved 41%. The discrepancies highlight the importance for LHINs to verify the information reported by health service providers.

4.3.3 Long-standing Performance Issues Not Always Resolved at Health Service Providers

When performance issues persist at health service providers, LHINs do not consistently ensure they are resolved. These performance issues are wide-ranging, from clinical (for example, a hospital's readmission numbers are high), to operational (for example, the number of clients served by a clinic at a community health centre repeatedly falls short of the performance target or markedly decreases), to financial (for example, a health service provider experiences chronic deficits). As a result, patients may not be receiving the best possible quality of care at these providers.

We found that the four LHINs visited did not consistently intervene to review or investigate performance issues, some of which have persisted for years. In June 2011 and August 2012, the Ministry released two guidelines for audits and reviews, one for hospitals and the other for community health service providers, to help LHINs respond effectively and consistently to health-service-provider issues. Both guidelines state that if a performance issue persists after the LHIN has held discussions and shared information with health service providers, the LHIN should intervene in other ways. These include:

- conducting a root-cause analysis to identify the source of the problem; and
- conducting an in-depth analysis of the health service provider's operations (or, in the case of a hospital, request another hospital to conduct a peer review).

The four LHINs we visited predominantly discussed and shared information with health service providers even for long-standing performance issues. Our review of a sample of health-service-provider performance reports found that 60% of community-sector and 80% of hospital-sector service providers failed to meet at least one performance target consistently over the three years leading up to March 31, 2014. For example, at one LHIN, we found that a CCAC did not meet five of its performance targets consistently over this three-year period. These performance shortcomings include not serving the expected number of individuals for in-home nursing, personal support services, and residential hospice services. This LHIN explained that the consistent underperformance was due to this CCAC shifting its resources to other priority areas, and providing more hours of care to clients with more complex needs, resulting in fewer clients being served. Although the four LHINs we visited had ordered peer reviews (the next level of intervention after discussions and information sharing), this intervention was used in a limited way—primarily for hospitals that faced deficits. As well, in the files we sampled, only one LHIN we visited applied intervention strategies with the community-sector health service providers that had failed to meet performance targets over the three years; the other three didn't. We made a similar observation in our audit of the Long-term-care Home Quality Inspection Program in **Section 3.09** of Chapter 3 of this Annual Report.

The Ministry can intervene for the most serious performance issues at health service providers by, for example, appointing a supervisor at a hospital or a CCAC. Over the past five years leading up to March 31, 2015, the Ministry had appointed a supervisor to oversee hospitals in three instances and a CCAC in one instance for issues such as concerns with the governance and management of a health-care organization, and disagreement over where to locate certain clinical services in a multi-site hospital.

The LHINs we visited explained that they choose discussions and information sharing over intervention strategies because they want to maintain a positive working relationship with their health service providers, who are not directly governed by the LHINs, and to work with them to identify solutions. The LHINs noted that other escalation strategies such as decisions to reduce funding are only reserved for situations warranted, as delivery of patient care may be affected as a result of these actions.

4.3.4 LHINs Do Not Always Ensure Corrective Actions Have Been Taken

All four LHINs we visited identified when health service providers did not meet performance targets, but they did not consistently follow up to ensure they implemented corrective actions to help them meet their targets in the future.

Our review of a sample of health-service-provider performance reports from March 31, 2014 (so we could assess LHIN follow-up activities the year after), found that about 30% of the service providers that performed below targeted levels did not provide explanations as required, and 45% did not prepare an action plan to describe how they would address the performance shortfall. Moreover, less than half of the health service providers that provided an action plan included timelines for completion. In the next reporting period, when we expected to see LHINs following up with the non-performing health service providers, we found that one LHIN had appropriately followed up on these cases while the other three had not. At these three LHINs, there was no documented evidence that follow-up actions were taken in over 70% of the sampled cases.

RECOMMENDATION 9

To ensure that performance issues of health service providers are addressed in an appropriate and timely manner, Local Health Integration Networks (LHINs) should:

- clarify with the Ministry of Health and Long-Term Care whose responsibility it is to verify data submitted by health service providers; if it is the LHINs' responsibility, verify on a sample basis information submitted by health service providers;
- take appropriate remedial action according to the severity and persistence of performance issues; and
- follow up with health service providers to ensure they provide explanations of performance shortfalls and take effective corrective actions to resolve issues according to a committed timeline.

RESPONSE FROM LHINs

The LHINs and Ministry acknowledge the importance of high-quality data for decision making. Accountability for reporting accurate and timely data lies with the health service providers. This obligation is embedded in the service accountability agreements for all sectors. The LHINs support health service providers to successfully meet their reporting accountabilities. The LHINs are not resourced or mandated to perform data audits and cannot assume that function. In order to increase confidence in the performance information submitted by health service providers, LHINs will develop or maintain a practice of regularly reviewing data submissions for consistency and reasonableness. LHINs will address concerns with health service providers and identify data quality as a performance issue as appropriate.

LHINs have a responsibility to identify and respond to serious and/or persistent performance issues demonstrated by health service providers as outlined in the service accountability agreements. Given the large number of health service providers and numerous services and programs offered by those providers, it is important that LHINs utilize a risk stratified approach to reviewing, prioritizing and resolving performance issues. Each LHIN will adopt or maintain a performance management framework and/or performance accountability policy.

The frameworks and policies will outline the risk management approach and an escalating set of interventions to be employed by LHINs in response to serious or persistent performance issues.

4.3.5 Weaknesses in Complaint Management

Consistent Complaint-management Process Lacking

We found that LHINs do not handle complaints in a consistent way. Effectively managing patient complaints and using a consistent process is important to ensuring quality health services are delivered consistently across the province.

The Act requires LHINs to ensure that appropriate processes within the local health system are in place to respond to concerns that people raise about the services they receive. However, there is no standardized patient complaint-management system for all LHINs. In 2014, the then-Minister of Health and Long-Term Care proposed that such a system be established. At that time, all LHIN CEOs agreed that LHINs should manage patient complaints consistently. However, at the time of our audit, a common complaint-management system had not yet been established. The LHINs we visited felt that their existing processes were meeting their needs and therefore do not intend to implement a common complaint-management system. In our view, the lack of consistency in handling complaints poses risks that patient concerns may not be appropriately addressed.

We analyzed the complaints for the year 2014 for 11 LHINs to identify the most common types of complaints. (Three LHINs did not track complaints at all or only partially tracked complaints in that year.) We found that access to health services (including accessing equitable services and service availability) was the most common area of concern. The second most common area of concern relates to health service quality (including concerns with health-care worker competency). These two types of concerns combined accounted for over 60% of all complaints received by these LHINs in the year 2014. **Figure 13** shows the types of complaints each LHIN received in the year 2014.

In December 2014, the government passed a bill, which, once proclaimed, will amend the *Excellent Care for All Act, 2010* to establish the province's first Patient Ombudsman, who will respond to complaints from hospital patients, long-term-care home residents, and CCAC clients and their caregivers that cannot be resolved through existing complaint processes. At the time of our audit, the government was conducting public consultation on the qualifications of the Patient Ombudsman. One LHIN we visited informed us that the reporting and working relationships between LHINs and the Patient Ombudsman are yet to be determined.

LHINs Do Not Actively Inform Public of Complaint Processes

Although each of the four LHINs we visited has its own policy for dealing with the complaints it receives, none of them has a mechanism for informing the public on how to register a complaint about health services when resolution at the health service provider is not achieved. For the most part, LHINs rely on the Ministry, health service providers and Members of Provincial Parliament to forward patient complaints to them. LHINs also noted to

Figure 13: Total Number of Complaints Received by LHINs, 2014

Sources of data: 14 Local Health Integration Networks

	Total Number of Complaints Received Relating to:							
LHIN	**Access** [1]	**Quality of Service** [2]	**Wait Time** [3]	**Integration and Co-ordination of Services** [4]	**Funding** [5]	**Community Engagement** [6]	**Others** [7]	**Total**
Erie St. Clair	35	21	8	2	3	1	14	**84**
Hamilton Niagara Haldimand Brant	18	18	10	3	3	0	12	**64**
Champlain	23	16	7	4	3	0	11	**64**
Toronto Central	14	15	9	3	1	0	21	**63**
North East	24	19	4	1	2	2	10	**62**
Central	16	14	6	1	0	2	19	**58**
Central East	18	11	2	1	1	0	3	**36**
Mississauga Halton	5	8	1	2	0	0	4	**20**
South West	4	9	5	0	0	0	1	**19**
North West	10	5	1	0	0	0	2	**18**
Waterloo Wellington	5	3	1	0	2	0	2	**13**
Central West [8]	not available – not tracked by LHIN until mid-2014							
North Simcoe Muskoka [9]	not available							
South East [9]	not available							
Total	**172**	**139**	**54**	**17**	**15**	**5**	**99**	**501**
% of Total Number of Complaints	**34**	**28**	**11**	**3**	**3**	**1**	**20**	

1. Examples of complaints included health service availability, capacity, closure, service gaps and service inequality. Complaints on service wait times are not included.
2. Examples of complaints included handling of services by health service providers and staff competency at health service providers.
3. The most common complaint was an overly long wait time.
4. Examples of complaints included the LHIN's integration strategies or initiatives and the LHIN's failure to co-ordinate services.
5. The most common complaint was insufficient funding for the health service provider to provide services.
6. Examples of complaints included health service providers' engagement with the stakeholder and the LHIN's community engagement.
7. Examples of complaints included complaints about other sectors not managed by the LHIN, such as primary care and ambulance service; and administrative matters, such as the LHIN, or a health service provider's governance, staff, and handling of complaints.
8. This LHIN began tracking complaints in mid-2014.
9. These LHINs do not have a formal complaint-tracking system in place.

us that patients can reach them via the contact information on their websites. The LHINs we visited have not considered other methods of informing patients about their complaint processes, such as *including their contact information in pamphlets* available at the offices of health service providers. Two-thirds of the health service providers who responded to our survey believe that the public is not well aware of the process in place to raise complaints to the LHINs; about a third of the current and former LHIN board members and CEOs felt the same way.

LHINs Do Not Ensure Health Service Providers Manage Complaints Well

We found that only two of the four LHINs have processes for ensuring that their health service providers resolve patient complaints. The other two LHINs keep too little information on patient complaints to show whether health service providers have satisfactorily resolved complaints, and one of them does not keep any original documents on patient complaints at all.

RECOMMENDATION 10

To ensure patients receive quality health services, and to facilitate collaboration between Local Health Integration Networks (LHINs) and the Patient Ombudsman, LHINs should:

- establish a common complaint management process that, among other things, clearly defines the methods for informing the public on how to register complaints;
- implement processes to determine whether health service providers have established policies and procedures to address and satisfactorily resolve patient complaints; and
- clarify the working relationship between LHINs and the incoming Patient Ombudsman.

RESPONSE FROM LHINs

The LHINs fully support the core promise of the Ministry to build a health system that puts patients first. This means understanding what is important to patients and listening when they have concerns. LHINs are currently working on website messaging that explains and outlines the complaint process to citizens, health service providers and other key stakeholders. LHINs will adopt and/or maintain a patient complaints management protocol.

Health service providers are accountable to establish and implement patient relations and complaints policies and procedures under the *Excellent Care for All Act* and/or their service accountability agreement. LHINs will ensure a process exists whereby health service providers demonstrate compliance with these accountabilities.

LHINs will continue to work closely with the Ministry as it implements the role of Patient Ombudsman. Following the Patient Ombudsman's appointment, the Ministry and LHINs will meet with the Patient Ombudsman to define the working relationship and expectations of each party. The Ministry will need to communicate to LHINs how the reporting and communication flow will occur between the Patient Ombudsman and the LHINs. Timelines will be contingent on work by the Ministry and the appointment of the Patient Ombudsman.

4.4 Processes Used to Plan and Integrate the Health System Need Improvement

LHINs' responsibilities include planning for the provision of health services in their regions for the six health sectors they manage and integrating these services.

Planning requires LHINs to engage with the community. All four LHINs visited were doing so, but only one consistently evaluated the success of the activities it undertook to engage with the community. Planning also requires LHINs to determine, among other things, their capacity to meet health service needs. While LHINs have begun working toward defining their capacity to meet health needs in the areas of rehabilitative services, palliative care, and home and community care, such work was not completed at the time of our audit.

LHINs are also expected to ensure consistencies among themselves and to develop joint strategies to improve patient care. While common approaches have been developed in some health areas to ensure patients receive reasonably similar care regardless of where they live, in the remaining health areas it is unclear whether the Ministry or the LHINs are responsible for developing consistent standards. As well, projects and initiatives undertaken are not always evaluated to determine whether they are worth sharing with other LHINs.

Good integration practices include group purchasing and "back-office integration" (that is, integrating or consolidating the administrative and business operations of LHINs and/or health service providers). However, these practices were not consistently used in the LHINs we visited, and more health service providers indicated to us via survey response that they wanted LHINs to explore additional group purchases and back office integration opportunities than those that did not.

We also found that LHINs were not consistently measuring their planning and integration projects to determine if they met intended outcomes. As well, LHINs were not effectively sharing successes from these projects with each other.

We look at the above issues in detail in the following subsections.

4.4.1 Effectiveness of Community Participation Not Assessed

The Act requires all LHINs to engage the community about the local health system on an ongoing basis while setting priorities. The Ministry's *LHIN Community Engagement Guidelines and Toolkit* (Guidelines) defines community engagement as "the methods by which LHINs and health service providers interact, share and gather information from and with their stakeholders" ("individuals, communities, political entities or organizations that have a vested interest in the outcomes" of LHIN projects and initiatives). Ways in which LHINs can engage with the community include public consultations, communication and education.

The Guidelines state that LHINs are to evaluate the success of their engagement activities. Specifically:

- Was the activity useful?
- Did participants feel the session gave them an opportunity to share relevant experience and recommendations?
- Did the activity allow LHINs to identify areas for improvement?

We reviewed a sample of community engagements carried out at the four LHINs we visited over the three years leading up to March 31, 2015, to determine if community engagement activities were evaluated. We found that only one LHIN consistently did so. The other three LHINs had not evaluated more than 90% of these engagements. So, although all four LHINs incorporated input from their community engagement events into their strategic plans, the lack of evaluation by those three LHINs may make it harder for them to tell whether their engagements were effective in identifying areas of concerns for planning and priority-setting purposes.

4.4.2 Processes for Determining System Capacity Lacking

Each of the four LHINs we visited has a process to define health system needs. The processes vary—some LHINs obtain input from patients directly, while others receive information from their health service providers. However, LHINs could do more to define system capacity (that is, how service supply meets current and future demand for service).

Concerns have been raised about insufficient capacity planning in the areas of palliative care, home and community care, and rehabilitative services. As we noted in our 2014 audit of Palliative Care, LHINs did not have system-wide information on available resources. The March 2015 report of the Expert Group on Home and Community Care, *Bringing Care Home*, recommended that each LHIN should "submit to the Ministry of Health and Long Term Care an evidence informed capacity plan for its region indicating where there are shortfalls and how any gaps in home care and community services will be addressed." Similarly, the March 2015 report issued by Rehabilitative Care Alliance (a province wide collaborative established in April 2013 by all 14 LHINs) recommended that LHINs use a capacity planning framework to define existing rehabilitative care resources. In addition, one of the LHINs we visited acknowledged in its 2013/14 annual business plan that it did not know whether there were service gaps in the delivery of community health services in its region.

According to our survey results, while more than 80% of the current and former LHIN board members and CEOs felt that LHINs have a good understanding of the local health system capacity and needs and are effective health system planners, only about 40% of the health service providers who responded to our survey felt the same.

RECOMMENDATION 11

To best meet the patients' health care needs, Local Health Integration Networks should:

- assess the effectiveness of each community engagement activity as required by the *LHIN Community Engagement Guidelines and Toolkit* issued by the Ministry of Health and Long Term Care;
- begin to collect, over a reasonable time period, the data needed to determine the existing capacity of all health services in their regions; and
- develop and implement action plans with timelines to address the service gaps identified.

RESPONSE FROM LHINs

A key component of the LHINs' mandate is to engage with and seek input from their local communities. This includes patients, families, health service providers, residents, professional associations, municipalities and others. The LHINs, in collaboration with the Ministry, are currently in the process of refreshing the *LHIN Community Engagement Guidelines and Toolkit*. The Guidelines and Toolkit refresh will continue to be aligned with the *Local Health Systems Integration Act, 2006* (Act) while reflecting the changing landscape of community and patient engagement, new and emerging technologies, and the maturation of LHIN processes that have now structurally incorporated engagement into routine planning. Direction about what type of community engagement activity lends itself to formal evaluation will be included in the refreshed Guidelines and Toolkit.

Work is under way to establish capacity plans in rehabilitative service, palliative care, and home and community care. The LHINs will continue to engage with the Ministry, health service providers, subject matter experts and other stakeholders in capacity assessment at a provincial level.

4.4.2 Sharing of Best Practices Needs Improvement

LHINs Have Collaboration Processes

Overall, we found that LHINs have processes in place to collaborate with each other on initiatives for meeting patient needs.

Both the Act and the accountability agreement between the Ministry and the LHINs require that LHINs ensure consistency and collaboration to improve patient care and to ensure a uniform approach to common issues and services.

We noted a number of working groups and committees involving all the LHINs are established to share information in different areas, such as

Aboriginal health, cancer programs, and mental health and addiction services. The LHIN CEOs also hold monthly meetings to discuss, among other things, potential LHIN initiatives involving all the LHINs. As well, the Local Health Integration Networks Collaborative, a division of the LHINs that the Ministry and the LHINs jointly fund, created a web-based forum for LHINs to share information on specific health topics such as home care and palliative care.

Some Best Practices Are Not Identified and Shared

LHINs undertake different projects and initiatives as defined under their three-year strategic plans to help improve their local health systems. But the LHINs we visited do not have a process in place to identify if their projects result in best practices and are therefore worth sharing with other LHINs. LHIN CEOs and Board Chairs agreed in 2014 that LHINs should have a framework to identify best practices and share successes. However, at the time of our audit, this framework had not been established.

A process for identifying best practices would involve defining the intended outcomes and formulating performance targets for each project that, if met, would indicate outcomes were achieved and best practices worth sharing.

We found that, in all the projects we sampled, only one LHIN we visited had established performance measures with targets to assess the success of its projects. Over 40% of a sample of projects we examined at the other three LHINs did not have any performance targets at all. For example, one LHIN we visited set up a geriatric program but did not have any measure to assess whether it reduced emergency department visits for the elderly. Doing so can help identify if the program is working as intended and is worth sharing with other LHINs.

In the four LHINs whose projects did have performance targets, about half of them measured mainly outputs. For example, one LHIN we visited developed a handout for patients discharged from hospital on how to care for themselves once they return home. This program was in response to a November 2013 report by a provincial expert panel on avoidable hospitalization that found discharge instructions are often poorly communicated. However, instead of measuring the success of this initiative in reducing readmissions to hospitals, the LHIN only measured the number of hospitals that participated in this initiative.

One LHIN we visited hired an organization that is part of a research centre within a hospital to train its staff in the fall of 2015 on how to design projects so they can be evaluated. Given that over 40% of projects we reviewed at three of the four LHINs did not have any targets, it would be prudent to ensure that all LHIN staff receive such training.

According to our survey results, only about 30% of the health service providers who responded to our survey felt that LHINs collaborate well with each other to improve different aspects of health services including quality of care, access to care and continuity of care, and to identify best approaches to plan and monitor the health system. In contrast, about 60% of the current and former LHIN board members and CEOs felt similarly.

RECOMMENDATION 12

To ensure that best practices are effectively identified and shared, Local Health Integration Networks should:

- develop guidelines and training to evaluate whether projects result in best practices; and
- establish a protocol to use for sharing best practices.

RESPONSE FROM LHINs

LHINs agree that sharing best practices is key to leveraging successes across the system in order to respond to population health needs. This is evident in the adoption of best practices across LHINs such as the Joint Assessment Centres. In order to drive innovative and sustainable service delivery, LHINs have initiated work in three priority areas to share best practices and minimize duplication of effort.

The Local Health Integration Network Collaborative, a division of LHINs jointly funded by the Ministry to co-ordinate and implement pan-LHIN initiatives, is working with the 14 LHINs in Mental Health & Addictions, Home & Community Care, and End of Life Care using this approach. Leveraging the learnings from these initiatives underway, the LHINs will continue to work toward developing guidelines and training for evaluation of best practices and establishing a protocol for sharing these across LHINs, recognizing the diverse geographies and unique populations that they serve.

4.4.4 Consistent Approaches to Delivering Certain Health Services Lacking

Certain health services can be delivered in consistent ways to ensure that patients receive the same level of service regardless of where in Ontario they live. Collaboration among LHINs is essential for this to happen.

The accountability agreement between the Ministry and the LHINs specifies that the Ministry is to identify common issues and services for which a consistent approach across LHINs is required, and to provide standards, directives and guidelines for LHINs or health service providers to follow. But because health care is such a vast and complex field, leaving it up to the Ministry alone to develop consistent approaches to every health service would not be efficient. More could be achieved if the Ministry and LHINs share in the task of developing consistent ways of delivering care in different areas. However, there is a lack of clarity in terms of who—the Ministry or the LHINs—is meant to lead the initiative, and when a consistent approach is necessary. About half of the current and former LHIN board members and CEOs—yet only a quarter of the health service providers—who responded to our survey, were clear on whether the Ministry or LHIN would take on the responsibility of developing standardized responses to common issues and services, indicating that this role should be clarified.

In practice, the responsibility has been shared between the Ministry and the LHINs, as noted in the following examples:

- The Ministry in 2013 began to establish standard clinical handbooks for 10 health procedures and conditions, including cancer surgery, coronary artery disease and pneumonia. These evidence-based handbooks look at how to improve the quality of care and achieve system efficiencies.
- The 14 LHINs in April 2013 formed an alliance with a goal to improve the delivery of rehabilitative care and develop a common approach to care for patients who require rehabilitative care across health sectors.

Yet, LHINs use inconsistent approaches for the same areas of other health services because standardized approaches are lacking, as noted in the following examples:

- Neither the Ministry nor the LHINs had defined a standard set of available addiction services, despite the fact that the Minister's Advisory Group on the 10 Year Mental Health and Addiction Strategy in December 2010 recommended that the Ministry establish a common basket of core services and provincial standards for mental health and addiction services. Given the absence of a standard set of services provincially, one LHIN we visited established its own set of core addiction services in 2014. Finally in May 2015, five years after the recommendation, all LHINs decided to begin working on identifying a core set of addiction services for the whole province. The Ministry noted that it had begun working toward identification of core services.
- Two of the four LHINs we visited used a best practice that involves identifying conditions for which common clinical approaches should be used and ensuring that health service providers follow them, so that all patients

have equitable access to similar treatment and quality care. One LHIN uses this approach for a broad range of medical conditions including gastroenterology, cancer, vascular surgery and ophthalmology. Another LHIN uses this approach for a smaller range of medical conditions—complex continuing care, stroke, and total joint replacement. The first LHIN followed this approach at the recommendation of an external consulting firm it engaged in 2012, following a review of leading practice strategies of 10 international jurisdictions with the best overall health in their populations.

RECOMMENDATION 13

To reduce the variation in the experiences of patients, the Ministry of Health and Long-Term Care should clarify under what circumstances it, as opposed to the Local Health Integration Networks, is responsible for establishing common approaches to delivering health services.

MINISTRY RESPONSE

The Ministry accepts this recommendation and is committed to continue to strengthen relationships with the LHINs, and to clarify, where required, responsibilities regarding the planning and delivery of health services. These discussions will occur through a variety of forums, including the monthly meetings between the Ministry's senior management committee and the LHIN CEOs.

Early and ongoing engagement between the Ministry, LHINs and health service providers on provincial strategies, working groups and expert panels has been and will continue to be a common business practice. In some instances, such as the work to develop standardized processes in rehabilitative care, the LHINs will take a leadership role with ministry engagement and support. In other cases, such as the development of quality-based procedures to reduce practice variation for select clinical procedures, the Ministry will provide the provincial direction with input and participation from the LHINs.

4.4.5 Group Purchases and Back-office Integration Not Fully Explored

The use of group purchasing and "back-office integration" (that is, integrating or consolidating the administrative and business operations of LHINs and/or health service providers) differed across the four LHINs we visited. As a result, LHINs could not demonstrate that they have maximized economic efficiencies in the delivery of health services as per their mandate.

Nine shared-services organizations have been established to help hospitals obtain better prices for goods and services through group purchasing and back-office services such as contract management (seven were established prior to creation of LHINs, and two after). Hospitals in three of the four LHINs we visited used services offered by one or more of these shared-services organizations. Some of these LHINs also co-ordinated for their hospitals additional group purchases and back-office integration services such as accounts payable services. As well, these LHINs co-ordinated group purchases on goods such as vehicles and computer equipment and arranged for translation services for their community-based health agencies. In comparison, the fourth LHIN did not use group purchasing, and its hospitals generally do not obtain services from any of the pre-existing shared-services organizations. Instead, one of the larger hospitals in this region has arranged for shared services on payroll and information technology with other hospitals. In 2013, an external consultant identified potential savings of $2.2 million over seven years if hospitals in this LHIN eliminated duplicated administrative work that each hospital will have to undertake in purchasing, and tried to arrange for volume discounts. However, this LHIN had not acted on this at the time of our audit, nor had it considered helping its community-based health service providers achieve similar cost savings.

We also found that only one LHIN we visited had plans to centralize the back-office support for all its integrated clinical programs including those for high-risk seniors, stroke and oncology programs across the LHIN so that they share common information management, human resources and financial support. The other three do not have such an initiative.

According to our survey results, more health service providers wanted LHINs to explore additional group purchases and back-office integration opportunities than those that did not. Also, while over 70% of the current and former LHIN board members and CEOs felt that LHINs have brought economic efficiencies to the delivery of health services, only a quarter of the health service providers who responded felt the same way.

RECOMMENDATION 14

To ensure that health services across Ontario are delivered as cost efficiently as possible, Local Health Integration Networks should identify further group-purchasing and back-office integration opportunities in the various health sectors, and implement these cost-saving practices.

RESPONSE FROM LHINs

The LHINs will support their health service providers to implement group-purchasing and back-office integration initiatives where a case exists to achieve significant value (i.e., realized cost savings, improved quality, improved internal controls and increased capacity). Consistent with the LHIN mandate, LHINs will continue to lead and focus on service integration (i.e., the integration of service delivery to patients, clients and residents) for the benefit of residents.

4.4.6 Outcomes of Integration Initiatives Not Always Measured

When LHINs implement initiatives to help integrate the health system, we found that they do not always measure cost savings achieved by these initiatives. It is, therefore, unclear whether these initiatives actually helped improve the local health systems and how much cost savings have been reinvested into direct patient care as a result. On average, the four LHINs we visited each initiated five to 26 integration projects in each of the 2013/14 and 2014/15 fiscal years. These projects included mergers of health-care providers and partnership with a health service provider to provide interpretation services for all patients in the region (see **Figure 2** for additional examples).

According to our survey results, 45% of the health service providers noted that LHINs have not fully explored integration opportunities in the different health sectors. A greater number of health service providers felt that LHINs' integration efforts mainly focused on hospitals than those who felt that the efforts focused on the entire health system. Also, LHIN management and health service providers did not have a consistent view on integration—90% of current and former LHIN board members and CEOs felt that their LHINs understand that integration is more than just reducing the number of health service providers in the region, while only half of the health service providers felt this way.

Only one of the four LHINs we visited tracked the cost savings that resulted from its integration projects, and then only on merger-type projects. This LHIN expected that once its integration projects are fully implemented, it will achieve annual cost savings of $1 million across its community health sector and $8.8 million across its hospital sector. At the time of our audit, two-thirds of the expected cost savings have been achieved; the LHIN expects to achieve the remaining cost savings by 2017. The fact that the impact of each integration initiative was not quantified may explain the following survey result—while over 80% of LHIN management felt that integration initiatives in their LHINs have resulted in better access to patient care and better quality care, only 40% of health service providers felt the same way.

LHINs we visited indicated that integration initiatives can also improve continuity of care, enhance the patient experience, and increase system capacity; these impacts may be tracked through other measures such as output or outcome measures. However, as we noted in **Section 4.4.3**, LHINs need to improve how they measure their integration projects, including developing performance targets and establishing outcome measures to assess the success of all integration projects.

RECOMMENDATION 15

To ensure integration initiatives improve local health systems and to help identify the most effective types of approaches to integration, Local Health Integration Networks should measure the impact that each integration initiative has on LHIN service levels and costs.

RESPONSE FROM LHINs

LHINs fully support measurement of the impact that each integration has on LHIN service levels and costs. The LHINs recognize the complexity associated with these evaluations. LHINs will work toward developing a standard framework in which to identify and measure the impact of these integrations demonstrating overall value for service providers, patients and the system. This work will be informed by the Ministry in partnership with health service providers and evaluation specialists in order to ensure an effective and aligned approach.

4.5 Funding Process Needs Improvement to Better Meet Patient Needs

LHINs are responsible for more than half of the provincial health-care budget for the year ending March 31, 2015. LHINs can, with certain exemptions, allocate funds among and between health service providers and health sectors as they choose to. We found that the four LHINs we visited did not consistently understand their funding authority as it relates to reallocating funds within and among health sectors, thereby limiting the opportunities to fully integrate the health services in their regions. We also found that LHINs are not notified of funding changes on a timely basis, and in turn do not in due course notify the health service providers they fund, resulting in cases where funding originally earmarked for health service providers is returned to the Ministry. As well, one LHIN we visited used a different tool than the common assessment framework to evaluate projects submitted by health service providers for the Urgent Priorities Fund, but that tool did not incorporate all assessment areas required in the common framework. As a result, there was no assurance that projects selected in that region were fairly meeting local urgent needs.

We look at the above issues in detail in the following subsections.

4.5.1 LHINs' Authority to Fund Health Sectors Needs to Be Clarified

Some LHINs might not have fully pursued certain integration opportunities because they had a different understanding than the Ministry of their authority over health-sector funding. The four LHINs we visited had a different perception of their funding authority from that of the Ministry.

The Ministry indicated that LHINs have the flexibility to allocate and reallocate much of their funds, provided that the LHIN's funding decision is made in accordance with the expectations stated in the accountability agreement and within the legislative framework. LHINs have less discretion over protected funding, such as long-term-care home sector funding (as explained in **Section 1.2.2**). However, the four LHINs we visited believe the Ministry still maintains authority and control over funding, as the Ministry can intervene in a LHIN's funding decision even if it has been approved by the LHIN Board. The Ministry noted that it would only intervene in a LHIN funding decision where the decision was contrary to the terms and conditions of the funding.

Also, the LHINs we visited have indicated that they cannot move new funding that the Ministry has specified to be spent on a specific health sector to another health sector if the LHIN considers that the other sector would better benefit from the new funding. For example, the four LHINs we visited indicated that they cannot use the funding increase that the Ministry earmarked for the community-based health sectors for hospital-based community services to spend on related services such as tele-homecare for chronic disease patients and a chronic disease prevention clinic. But the Ministry actually allows LHINs to negotiate with it if the LHINs want to use the funding for a purpose different than that specified by the Ministry. The lack of clarity on funding authority between the Ministry and LHINs may result in LHINs not being able to direct funds to facilitate areas of health care to address their local needs, including the need to integrate health-care services.

RECOMMENDATION 16

To ensure that Local Health Integration Networks (LHINs) appropriately facilitate areas of health care to address local needs, the Ministry of Health and Long-Term Care (the Ministry) should clarify with the LHINs what authority they have to reallocate funding among health service providers, and inform them that they can negotiate the use of dedicated funding with the Ministry.

MINISTRY RESPONSE

The Ministry supports this recommendation and will take appropriate steps to ensure that all LHINs have a consistent understanding of their funding authority, including the ability to reallocate funds.

4.5.2 Ministry Finalizes Annual Funding Late in the Year and Health Service Providers Receive Funding Late from LHINs

Health service providers need to know how much funding is available to them in order to effectively plan health services for the year and ensure they do not run deficits. However, LHINs do not confirm their final funding until well into the fiscal year.

With the exception of funding for reforms of hospitals and CCACs, health service providers are generally funded based on the amount they received the year before. But annual funding is subject to changes depending on the Ministry's and LHIN's funding decisions during the year. In the two years leading up to March 31, 2015, the Ministry finalized funding to the four LHINs we visited well into the fiscal year. These delays resulted in these LHINs not informing the health service providers about their funding decisions until six months before the fiscal year end that first year and three months before the fiscal year end the second year. At all four LHINs we visited, health service providers were notified of funding changes as late as the last month of the fiscal year in the year ending March 31, 2015. These delays made it difficult for health service providers to provide the intended services for the period, and to meet their service volume target. As a result, some service providers had to return the money to the LHINs. The LHINs, in turn, needed to reallocate the surpluses to other providers, and returned the residual amount to the Ministry, defeating the purpose of providing funding to those health service providers in the first place.

RECOMMENDATION 17

To ensure health service providers can properly plan to meet patient-care needs, the Ministry of Health and Long-Term Care, in conjunction with the Local Health Integration Networks, should finalize the annual funding each health service provider will receive before the fiscal year begins or as early in the current fiscal year as possible.

MINISTRY RESPONSE

The Ministry supports this recommendation. The majority of LHIN funding is a base budget that continues from one year to the next. The Ministry is working with sector partners to review its funding processes to identify opportunities to finalize allocations earlier, and will work with the LHINs to confirm funding amounts as early as possible.

4.5.3 Urgent Priorities Fund Allocated to LHINs Based on Outdated Population Information

The Ministry has not reviewed whether the existing allocation and amount of the Urgent Priorities Fund (Fund) are still appropriate. The purpose of the Fund is to address urgent local health-care priorities for projects submitted by health service providers. Examples of funded projects include increased funding to alleviate wait times for accessing MRI and CT scans at hospitals, and increased funding to a mobile mental health crisis team.

While the Fund has remained constant at $50 million for all 14 LHINs since its inception, the amount of overall LHIN funding, including funding to health service providers, has increased by 29% between 2008 and 2015 (the inflation-adjusted increase is 12%). Between 2008 and 2015, LHINs on average distributed 97% of the Fund to health service providers.

Each LHIN's annual allocation from the Fund is based on the population information the Ministry had when the Fund was created in 2007, eight years ago (the Ministry cannot confirm the actual year from which the population data was derived). But population distribution has changed since then. For instance, between 2006 and 2011, the population of one of the LHINs we visited increased by 11%, twice the provincial increase of 5.6%. Moreover, this LHIN's population is expected to grow an additional 10% by 2016, and a further 10% by 2021. Residents of this LHIN could well be shortchanged with respect to their most urgent health-care needs because their share of the Fund is based on outdated population data.

RECOMMENDATION 18

To ensure that the share of the Urgent Priorities Fund allocated to each Local Health Integration Network reflects current patient needs, the Ministry of Health and Long-Term Care should:

- ensure the amount allocated to the Fund is appropriate considering overall funding increases over time; and
- regularly revise the allocation on the basis of current population and/or other relevant information.

MINISTRY RESPONSE

In 2007, the government announced a commitment to address urgent health-care priorities in local communities through the creation of a population-based $50 million annual fund. The funding was rolled out to the LHINs as base funding and it is reflected within their total annual allocation. As part of the guidelines for the fund, LHINs have the ability to designate all or a portion of their annual allocation to a health service provider's base budget. Since much of this funding is already committed by the LHINs to their health service providers for the purpose of addressing urgent local priorities, reallocating existing funding could have impacts on direct service delivery.

The Ministry supports the recommendation to allocate funding using population-based models and will work with the LHINs to equitably distribute new funding based on the latest population figures for each LHIN.

4.5.4 Urgent Priorities Fund Projects Assessed Using Different Selection Criteria

The Local Health Integration Networks Collaborative (discussed previously in **Section 4.4.3**) developed a decision-making framework in November 2010 to help LHINs make consistent decisions on projects, including funding proposals they receive for the Urgent Priorities Fund. But, while LHINs are expected to use this framework—which includes project-assessment criteria such as value to the health system and impact on system performance and population health—they are not consistently doing so.

Three of the four LHINs we visited did use the framework and assigned specific weighting to each of the framework categories in order to ensure that funding supports their local strategic priorities. One of the LHINs we visited, however, uses a different tool to assess proposed projects, but this tool does not incorporate all assessment areas that are required in the common framework, such as potential impact on service quality and population health outcomes. Also unlike the common framework, this tool does not assign scores to its assessment criteria. As a result, there is no assurance that the projects selected by this LHIN are the most appropriate to serve its urgent needs at that time.

4.5.5 Urgent Priorities Fund Used for Purposes Not Allowed

We tested a sample of projects that used the Urgent Priorities Fund in the four LHINs we visited to ensure funding was going exclusively to direct patient services, as the Fund requires. Most of the funded projects we reviewed were for direct patient services such as increasing hospital beds, increasing long-term-care beds, and funding more hours for MRI or CT scans. We found two instances where the Fund was used for other purposes than direct patient services. In one case, a LHIN allocated $861,000 to a health service organization so it could develop business application software to make patient information available to hospitals and a local CCAC. The LHIN did not use the common assessment framework and explained that the software has allowed hospitals to easily identify patients with high needs. In another case, a LHIN in 2013 allocated $130,000 toward the severance payment of an outgoing CEO of a former mental health agency.

RECOMMENDATION 19

To ensure health service providers spend funding from the Urgent Priorities Fund only on patient services, as the Fund requires, Local Health Integration Networks should follow a consistent decision-making process and approve applications only on the basis of established criteria.

RESPONSE FROM LHINs

Many LHINs adopted the decision-making framework developed in 2010 by the Local Health Integration Networks Collaborative to help make consistent decisions on funding projects, programs and services. All LHINs will use the revised framework for decision-making about the allocation of discretionary funds.

4.6 LHIN Boundaries Need Revisiting

Ever since the Ministry divided the province into 14 LHINs in 2006, it has not reviewed whether the division is still appropriately meeting the health-care needs of the changing population. In creating those divisions, the Ministry considered the patterns of how people accessed hospital services. Specifically, the postal codes of patients at each hospital were analyzed and mapped into unique areas, ultimately becoming the 14 LHINs as they exist today. As a result, the division of the province differs from already-established divisions such as municipal boundaries or electoral districts.

Health service providers who responded to our survey expressed concerns that because the LHIN boundaries do not always conform to municipal boundaries, it is difficult to leverage existing partnerships for health-care planning and to provide consistent patient care with adjoining LHINs. A greater number of respondents indicated that there are too many LHINs than those who found there were not enough.

RECOMMENDATION 20

To ensure the division of the Local Health Integration Networks (LHINs) is conducive to effective planning and integrating of local health-care services, the Ministry of Health and Long-Term Care should review existing LHIN boundaries.

MINISTRY RESPONSE

The Ministry will review the existing LHIN boundaries to determine whether changes may be required.

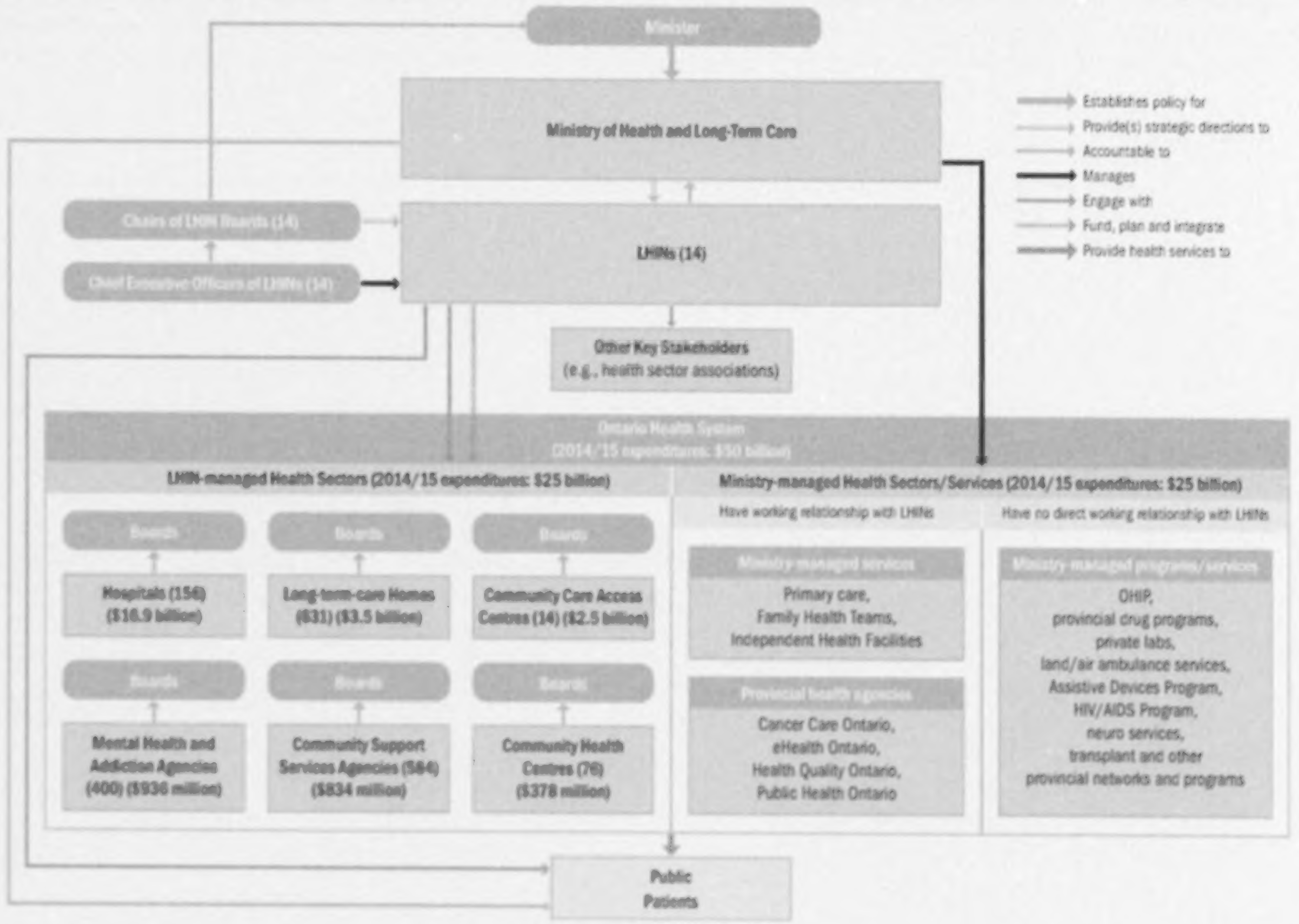
Appendix 1—Objects of a Local Health Integration Network

Source of data: *Local Health System Integration Act, 2006*

1	To promote the integration of the local health system to provide appropriate, co-ordinated, effective and efficient health services.
2	To identify and plan for the health service needs of the local health system in accordance with provincial plans and priorities and to make recommendations to the Minister about that system, including capital funding needs for it.
3	To engage the community of persons and entities involved with the local health system in planning and setting priorities for that system, including establishing formal channels for community input and consultation.
4	To ensure that there are appropriate processes within the local health system to respond to concerns that people raise about the services that they receive.
5	To evaluate, monitor and report on and be accountable to the Minister for the performance of the local health system and its health services, including access to services and the utilization, co-ordination, integration and cost-effectiveness of services.
6	To participate and co-operate in the development by the Minister of the provincial strategic plan and in the development and implementation of provincial planning, system management and provincial health care priorities, programs and services.
7	To develop strategies and to co-operate with health service providers, including academic health science centres, other local health integration networks, providers of provincial services and others to improve the integration of the provincial and local health systems and the co-ordination of health services.
8	To undertake and participate in joint strategies with other local health integration networks to improve patient care and access to high-quality health services and to enhance continuity of health care across local health systems and across the province.
9	To disseminate information on best practices and to promote knowledge transfer among local health integration networks and health service providers.
10	To bring economic efficiencies to the delivery of health services and to make the health system more sustainable.
11	To allocate and provide funding to health service providers, in accordance with provincial priorities, so that they can provide health services and equipment.
12	To enter into agreements to establish performance standards and to ensure the achievement of performance standards by health service providers that receive funding from the network.
13	To ensure the effective and efficient management of the human, material and financial resources of the network and to account to the Minister for the use of the resources.
14	To carry out the other objects that the Minister specifies by regulation made under this Act. 2006, c. 4, s. 5.

Appendix 2—Overview of the Ontario Health System

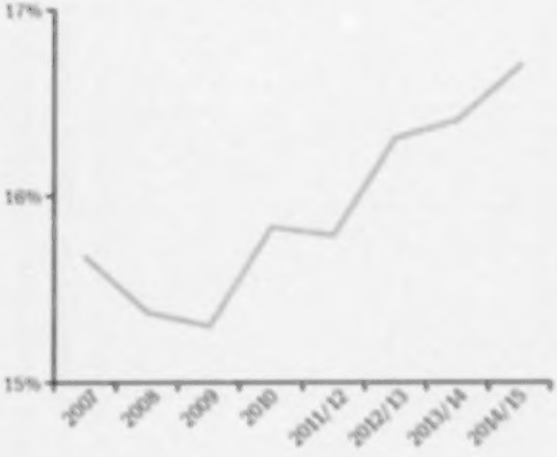
Prepared by the Office of the Auditor General of Ontario based on information provided by the Ministry of Health and Long-Term Care and the Ministry of Finance


Minister
Ministry of Health and Long-Term Care
Chairs of LHIN Boards (14)
Chief Executive Officers of LHINs (14)
LHINs (14)
Other Key Stakeholders (e.g., health sector associations)
Establishes policy for
Provide(s) strategic directions to
Accountable to
Manages
Engage with
Fund, plan and integrate
Provide health services to
Ontario Health System (2014/15 expenditures: $50 billion)
LHIN-managed Health Sectors (2014/15 expenditures: $25 billion)
Boards
Hospitals (156) ($16.9 billion)
Boards
Long-term-care Homes (631) ($3.5 billion)
Boards
Community Care Access Centres (14) ($2.5 billion)
Boards
Mental Health and Addiction Agencies (400) ($936 million)
Boards
Community Support Services Agencies (584) ($834 million)
Boards
Community Health Centres (76) ($378 million)
Ministry-managed Health Sectors/Services (2014/15 expenditures: $25 billion)
Have working relationship with LHINs
Have no direct working relationship with LHINs
Ministry-managed services
Primary care, Family Health Teams, Independent Health Facilities
Provincial health agencies
Cancer Care Ontario, eHealth Ontario, Health Quality Ontario, Public Health Ontario
Ministry-managed programs/services
OHIP, provincial drug programs, private labs, land/air ambulance services, Assistive Devices Program, HIV/AIDS Program, neuro services, transplant and other provincial networks and programs
Public
Patients

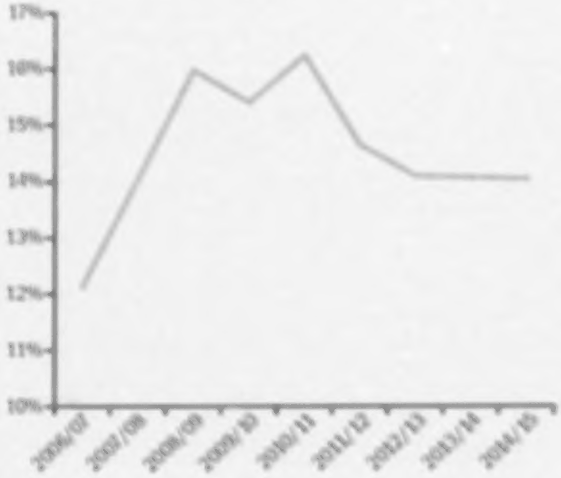
Appendix 3—Summary Statistics on Province-wide Performance for 15 LHIN Measurement Areas

Sources of data: Cancer Care Ontario, Cardiac Care Network of Ontario, Ministry of Health and Long-Term Care

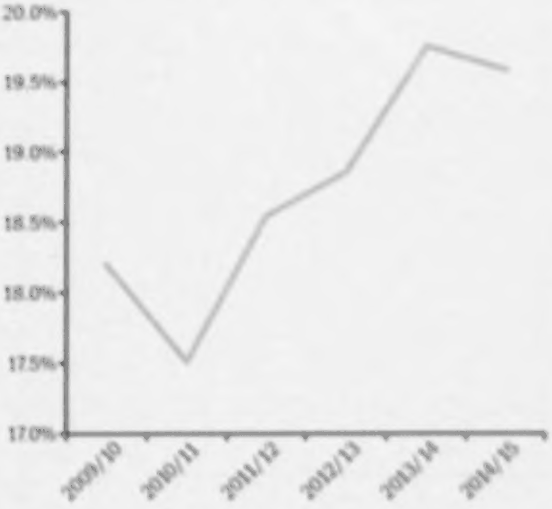
Readmissions within 30 Days for Selected CMGs[1]



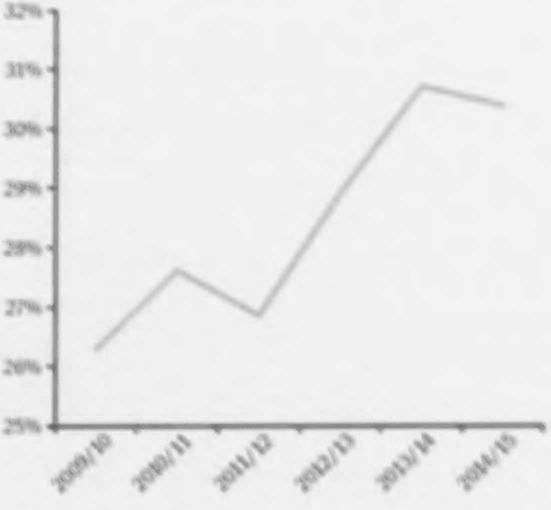
Percentage of Alternate Level of Care (ALC) Days



Repeat Unscheduled Emergency Visits within 30 Days for Mental Health Conditions[2]

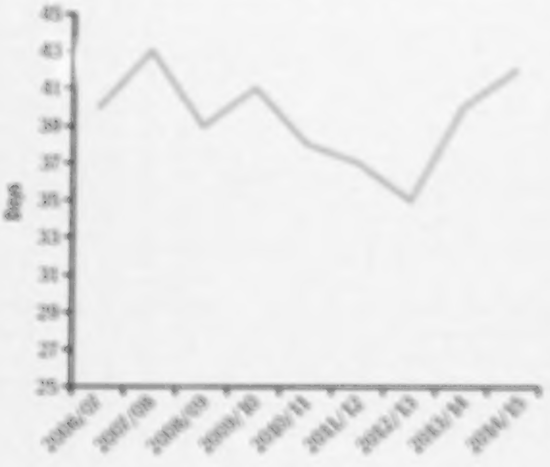


Repeat Unscheduled Emergency Visits within 30 Days for Substance Abuse Conditions[2]

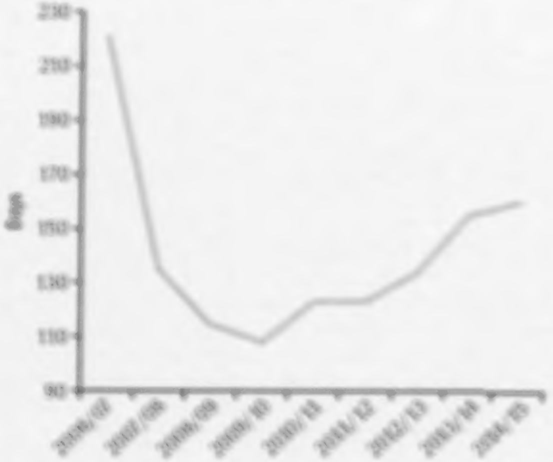


1. Data prior to the fiscal year ending March 31, 2012 is only available for the calendar year.
2. Comparative data is only available from the fiscal year ending March 31, 2010, onwards.

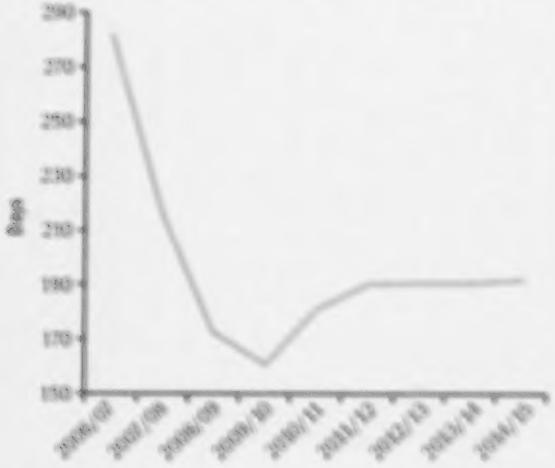
90th Percentile Wait Time—Cardiac By-pass Procedures



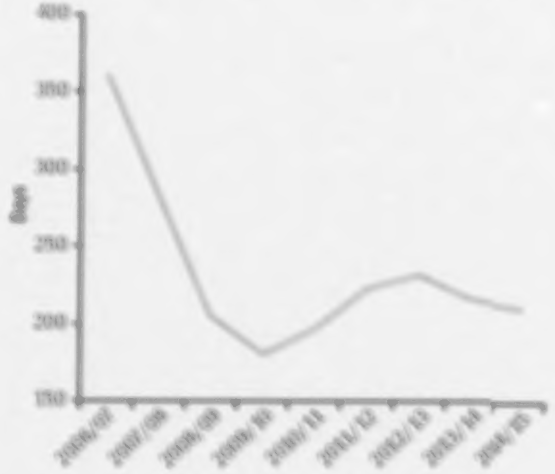
90th Percentile Wait Time—Cataract Surgery



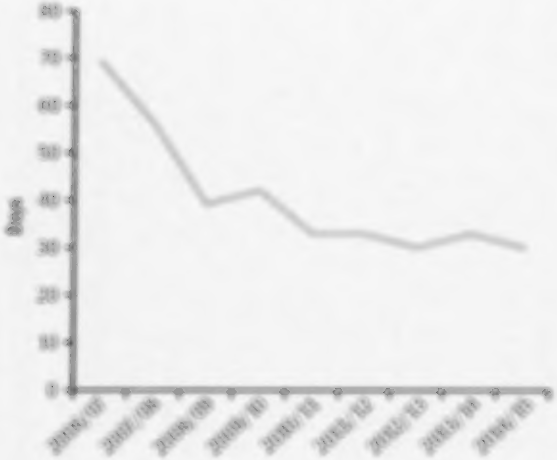
90th Percentile Wait Time—Hip Replacement



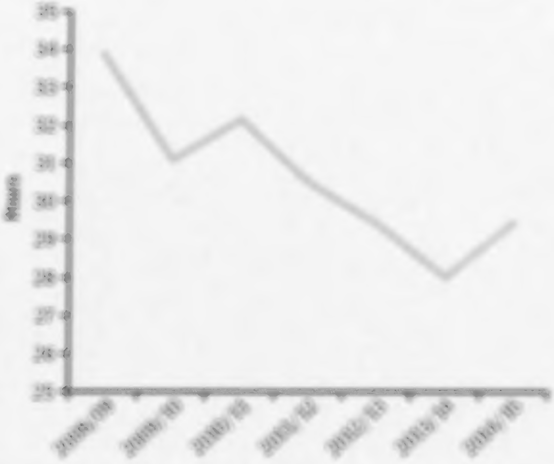
90th Percentile Wait Time—Knee Replacement



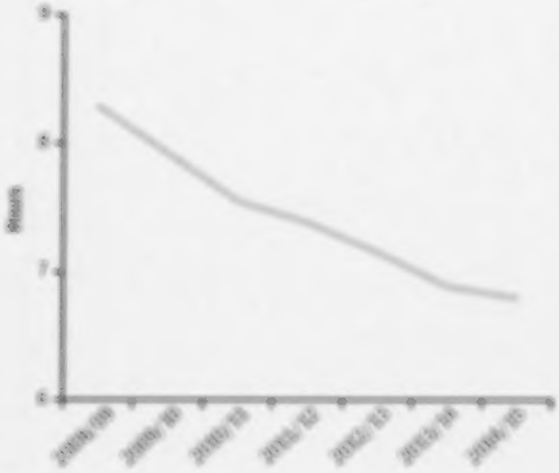
90th Percentile Wait Time—Diagnostic CT Scan



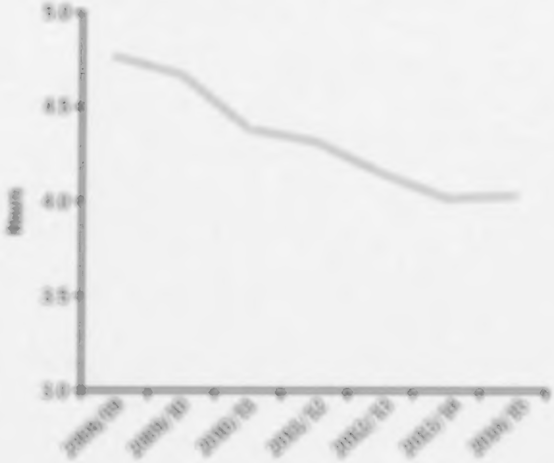
90th Percentile Emergency Room Length of Stay—Admitted Patients



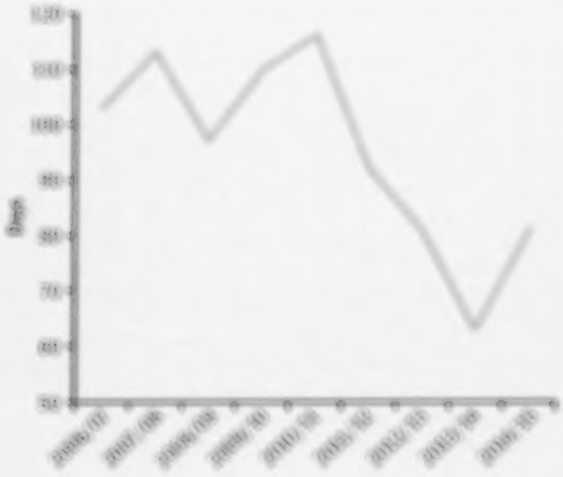
90th Percentile Emergency Room Length of Stay—Non-admitted Complex Patients



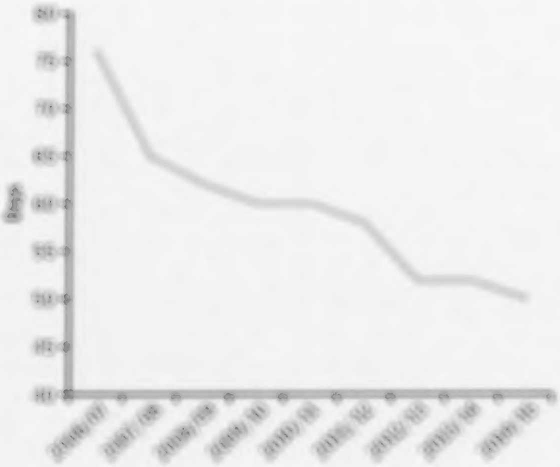
90th Percentile Emergency Room Length of Stay—Non-admitted Uncomplicated Patients



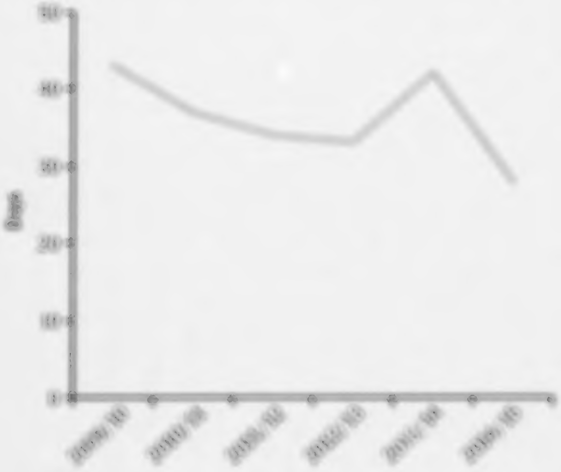
90th Percentile Wait Time—MRI Scan



90th Percentile Wait Time—Cancer Surgery



90th Percentile Wait Time from Community for CCAC In-home Services[1]



[1] Comparative data is only available from the fiscal year ending March 31, 2010, onwards.

Appendix 6—Health System Performance, Ontario and Other Canadian Jurisdictions, 2010–2014

Source of data: Health Quality Ontario, Canadian Institute for Health Information

Indicators	Period Covered	Results of the Best-performing Province	Results of the Second-best-performing Province	Results of the Third-best-performing Province	Ontario's Performance (if Not within Top 3)	Canada Average
Indicators Currently Measured in the 15 Areas (either identical or similar)						
% of hip replacement procedures provided within patient wait time of 182 days	2014	Newfoundland and Labrador, 98%	Saskatchewan, 93%	**Ontario, 88%**		83%
% of knee replacement procedures provided within patient wait time of 182 days	2014	Newfoundland and Labrador, 92%	Saskatchewan, 89%	**Ontario, 80%**		79%
30-day readmission rates following hospitalization	2010/11	Alberta and Nova Scotia, 8.2%	Quebec, 8.3%	**Ontario** and New Brunswick, 8.4%		8.5%
30-day readmission for mental illness	2012	Manitoba, 9.2%	Alberta, 9.8%	Saskatchewan, 10.5%	**Ontario, 11.3% (5th)**	11.0%
% of cataract surgery procedures provided within patient wait time of 112 days	2014	Newfoundland and Labrador, 98%	New Brunswick, 88%	Saskatchewan and Quebec, 86%	**Ontario, 81% (5th)**	80%
Indicators in the Proposed 15 Areas (either identical or similar)						
Hospitalizations for medical conditions that can potentially be managed outside the hospitals per 100,000 people	2011/12	British Columbia, 254	**Ontario, 268**	Quebec, 275		290
% of people who stayed overnight in hospital in the past 2 years and when left, hospital made arrangements or made sure that follow-up care with a doctor or other health-care professional was provided	2014	Newfoundland and Labrador, 88%	Prince Edward Island, 82%	**Ontario, 81%**		78%
Other Indicators						
% of radiation therapy procedures provided within patient wait time of 28 days	2014	Manitoba, 100%	**Ontario** and Quebec, 99%	Newfoundland and Labrador, 95%		98%
% of people reported difficult or somewhat difficult in getting access to care on evening or weekend without going to emergency department	2013	British Columbia, 54%	**Ontario, 58%**	New Brunswick and Prince Edward Island, 61%		60%
% of people able to see primary care provider on the same day or next day when they were sick	2013	British Columbia, 45%	Saskatchewan and Prince Edward Island, 41%	**Ontario, 40%**		39%

Indicators	Period Covered	Results of the Best-performing Province	Results of the Second-best-performing Province	Results of the Third-best-performing Province	Ontario's Performance (if Not within Top 3)	Canada Average
% of hip fracture repair procedures provided within patient wait time of 48 hours	2014	Manitoba, 91%	British Columbia, 89%	**Ontario, 84%**		84%
% of people who stayed overnight in hospital in the past 2 years and when left, knew whom to contact if there was a question about their condition or treatment	2014	Prince Edward Island, Saskatchewan, 95%	British Columbia, 94%	Manitoba, 93%	**Ontario**, 90% (5th)	89%
% of people who stayed overnight in hospital in the past 2 years and when left, received written information on what to do when they returned home and what symptoms to watch for	2014	Newfoundland and Labrador, 84%	Saskatchewan, 82%	Alberta, Manitoba, 81%	**Ontario**, 75% (tied for 6th with New Brunswick)	73%
% of people who stayed overnight in hospital in the past 2 years and when left, doctors or staff at the place where individual usually received medical care seemed informed and up to date about the care received in the hospital	2014	Prince Edward Island, 92%	Manitoba, 89%	British Columbia, 87%	**Ontario**, 77% (tied for 7th with Newfoundland and Labrador)	80%

Chapter 3

Section

3.09

Ministry of Health and Long-Term Care

Long-term-care Home Quality Inspection Program

1.0 Background

1.1 Overview of Long-term-care Homes

Ontario's long-term-care homes provide accommodation and care in a home-like environment to adults who are unable to live independently and/or require round-the-clock nursing care in a secure setting. There are about 630 long-term-care homes in Ontario. They provide care to approximately 77,600 residents, most of whom are over 65 years old.

The Ministry of Health and Long-Term Care (Ministry) funds, licenses and regulates Ontario's long-term-care homes. Homes can be either for-profit or not-for-profit, which are further categorized as municipal and non-municipal homes, as shown in **Figure 1**. In the 2014/15 fiscal year, ministry funding to long-term-care homes through the province's Local Health Integration Networks totalled $3.6 billion. Most residents make a co-payment of between $1,800 and $2,500 a month, depending on whether they occupy a basic, semi-private or private room.

The *Long-Term Care Homes Act, 2007* (Act) came into effect on July 1, 2010. The Act and its regulations set out standards for all long-term-care homes in Ontario. The Act covers residents' rights, care and services; admission of residents; operation of homes; and funding and licensing of homes. The Act provides the Ministry with the power to ensure homes are in compliance with the legislation and to take enforcement actions, if necessary. By law, every long-term-care home must have a residents' council (made up of people who live in the home). A home may also have a family council (made up of family members of current or past residents). The purpose of these councils is to provide a voice for residents and their family members on how the home is operated.

The Canadian Institute for Health Information (CIHI) reports regularly on a number of quality indicators based on the information self-reported by long-term-care homes in Ontario. In 2015, CIHI published nine quality indicators on homes, such as the percentage of residents who are in daily restraints, the percentage of residents who are

Figure 1: Long-term-care Homes in Ontario, March 2015

Source of data: Ministry of Health and Long-Term Care

Type of Long-term-care Home	# of Homes	# of Beds
For-profit homes	360	41,800
Not-for-profit homes (other than municipal homes)	170	20,300
Not-for-profit homes (municipal homes)	100	16,400
Total	**630**	**78,500***

* Of which, approximately 77,000 beds were occupied as of March 2015.

taking antipsychotic drugs without a diagnosis of psychosis, the percentage of residents who fell in the last 30 days and the percentage of residents with a worsened pressure ulcer. **Appendix 1** shows the results for the nine quality indicators by region for 2013/14 (2013/14 is the most recent year for which data from individual homes is available), as well as the change in overall provincial performance between 2010/11 and 2013/14. Overall, results for four of the nine indicators improved by between 6% and 45% over these three years, while the results for the other five indicators worsened by between 2% and 7% over the same three years.

1.2 The Ministry's Long-Term Care Homes Quality Inspection Program

1.2.1 Program Overview

The aim of the Long-Term Care Homes Quality Inspection Program (Program) is to focus on residents' quality of care and quality of life by protecting and safeguarding residents' rights, safety and security as well as ensuring that long-term-care homes comply with legislation and regulations. A similar program existed before but was transformed to align with the Act when it came into effect in 2010.

The Program is administered by the Ministry's Performance Improvement and Compliance Branch, which falls under its Health System Accountability and Performance Division. The Program consists of a head office with a centralized intake unit and five regional offices. In total, the Program has about 200 staff, including over 150 inspectors. Each regional office has a manager and two inspector team leads who prioritize and assign inspections to inspectors and oversee their work. **Appendix 2** summarizes the key roles, responsibilities and accountability relationships in long-term-care home oversight.

1.2.2 Types of Inspections

Under the Act, the Ministry may conduct inspections of long-term-care homes at any time without having to alert the homes beforehand. There are four types of inspections: comprehensive inspections, complaint inspections, critical-incident inspections and follow-up inspections. **Figure 2** shows the number for each type of inspection conducted between 2012 and 2014. During 2014, the Ministry performed a total of 2,630 inspections, 210 more than the number performed in 2013. The increase is mainly due to additional comprehensive inspections that year. The process for each type of inspection is described in the following subsections.

Comprehensive Inspections

In early 2011, the Ministry implemented comprehensive inspections, which aim to assess residents' satisfaction and homes' compliance with legislative requirements. To increase inspection efficiency and avoid duplication, the Ministry can inspect complaints, critical incidents and/or follow up on compliance orders during a comprehensive inspection. On average, a comprehensive inspection involves three or four inspectors examining the home over an eight-day period. This inspection process has two stages and 31 inspection protocols, five of which are mandatory protocols (medication; infection prevention and control; residents' council and family council interviews; and dining observation).

In the first stage of a comprehensive inspection, inspectors review health records, make observations

Figure 2: Number of Inspections by Type, 2012–2014[1]

Source of data: Ministry of Health and Long-Term Care

Type of Inspection	2012	2013	2014
Comprehensive[2]	60	50	590
Critical-incident[3]	700	940	810
Complaint[3]	1,190	1,140	970
Follow-up[4]	290	290	260
Total	**2,240**	**2,420**	**2,630**

1. Based on calendar year. Data prior to 2012 is either incomplete or not available.
2. When conducting comprehensive inspections, Ministry inspectors may also address critical incidents or complaints, or follow up on orders issued.
3. The Ministry addressed approximately 2,970, 2,540 and 3,840 complaints and critical incidents in 2012, 2013 and 2014, respectively.
4. The Ministry followed up on approximately 510, 610 and 770 compliance orders in 2012, 2013 and 2014, respectively. Compliance orders can also be followed up during any types of inspection.

in the homes, and interview a sample of residents, their family members and/or staff members who care for them. Inspectors analyze the information collected and identify areas for further, more in-depth inspection in stage two.

See **Appendix 3** for a more detailed overview of the comprehensive inspection process and inspection protocols.

Complaint Inspections

The Ministry receives complaints from residents, their family members, and the public mostly by phone (through a toll-free ServiceOntario Action Line) but also in person and by email or fax. Long-term-care homes are also required to immediately forward any written complaints they receive to the Ministry.

Since November 2012, the Ministry's centralized intake unit has responsibility for reviewing every complaint it receives and to decide whether an inspection is warranted (i.e., any indications of a home failing to comply with the legislation). In 2014, the Ministry received close to 3,300 complaints (2013—2,910). If it decides that an inspection is required, the unit assigns a risk level to each case: high, medium or low. High-risk cases involve alleged improper care, abuse, neglect, unlawful conduct, or retaliation by the homes' staff—anything that places resident(s) in serious (or significant risk of serious) harm and in immediate jeopardy if the Ministry or the home fails to intervene. Medium-risk cases involve any alleged violation of the Act that result in moderate (or risk of moderate) harm to a resident(s). Low-risk cases involve minimal (or risk of minimal) harm. The Act stipulates that high-risk complaints be inspected immediately, while the Ministry aims to inspect medium-risk complaints within 30 days and low-risk complaints within 120 days.

On average, it takes one or two inspectors over a two-day period to perform a complaint inspection. In 2014, the Ministry inspected about 1,810 complaints (2013—1,280). Inspectors use the inspection protocol(s) (see **Appendix 3**) that best match the nature of the complaint. The Ministry has an internal policy that requires inspectors to report the outcome of a complaint inspection to the complainant(s).

Critical-incident Inspections

Long-term-care homes must immediately report critical incidents to the Ministry, such as: fire, neglect or abuse of residents, improper care, misuse of residents' money, unlawful conduct, unexpected or sudden death, residents missing for more than three hours, missing residents who return with an injury or adverse change in condition, outbreaks of reportable or communicable diseases, and contamination of the drinking water supply. For other incidents, such as resident falls resulting in significant change in condition that require a hospital visit, failures of the home's security or other major systems for more than six hours, and missing medication, the homes are required to inform the Ministry within one business day. Homes report critical incidents through a web-based tool called the Critical Incident System or through a pager if the incident occurs after business hours. In 2014, the long-term-homes reported over 12,900 critical incidents (2013—15,300) to the Ministry.

The Ministry's centralized intake unit reviews every critical incident reported to decide whether an inspection is warranted. The inspection process to address a critical incident is the same as the process for complaint inspections described in the previous section. Inspectors typically determine whether the homes complied with the legislative requirements for reporting, handling and documenting the incident, and whether the incident was a result of not complying with other sections of the Act. In 2014, the Ministry inspected approximately 2,030 critical incidents (2013—1,260).

Follow-up Inspections

If an inspection results in the home being issued with an order to comply with the legislation, there must be a follow-up inspection to ensure that the home has followed the order by the deadline given and that the issue has been rectified. During 2014, the Ministry conducted about 260 follow-up inspections (2013—290) and addressed about 770 compliance orders (2013—610) issued to the homes.

1.2.3 Types of Enforcement Actions

If, after conducting any type of inspection mentioned above, inspectors find a long-term-care home is not in compliance with the Act—for example, residents' rights, safety and well-being are not protected—they shall take one or more of the following five enforcement actions:

1) issue a written notification;
2) issue a voluntary plan of correction;
3) issue a compliance order;
4) issue a work-and-activity order; or
5) refer the matter to the Ministry's Program Director, who may issue an order.

Figure 3 describes in detail each type of enforcement action and its follow-up requirement. When deciding what type of enforcement action to take, inspectors consider the severity and scope of the problem along with the home's history in dealing with deficiencies. **Figure 4** shows the number of enforcement actions taken by the Ministry between 2012 and 2014; the total number had increased by more than twofold during the last two years. The significant increase is primarily due to the Ministry having performed 540 more comprehensive inspections in 2014 than in 2013 (see **Figure 2**). Over the last three years, the Ministry had not issued any work-and-activity orders that require the home to pay for necessary work performed by the Ministry on the home's behalf in order for them to achieve compliance.

1.2.4 Reporting Inspection Results

After they complete an inspection of a home, inspectors are required to prepare a report documenting all instances of non-compliance they identified and the enforcement action(s) to be taken for each. Copies of the inspection report go to the home's operator, the residents' council and the family council, if there is one. The Ministry is also required to publish every inspection report on its website. Reports must be edited to remove personal and health information about individual residents before they can be made public and/or shared with the councils.

The Ministry's policy is that inspection reports are to be submitted to the regional office manager and/or inspector team lead for review, and that any reports with compliance orders must be submitted to the regional office manager for approval. The Ministry aims to deliver the inspection report to operators of the homes within two weeks of an inspection, and to publish the report on the Ministry's website within two months.

Figure 3: Types of Enforcement Actions and Follow-up Requirements

Source of data: Ministry of Health and Long-Term Care

Enforcement Action	Description	Follow-up Requirement
Written notification	Specifies the details of each instance of non-compliance.	A follow-up inspection is not required.
Voluntary plan of correction	Requests that the home prepares a written plan of correction for achieving compliance, but it does not require the home to submit the plan.	
Compliance order	Requires the home to take action, stop doing an action or prepare a plan in order to achieve compliance by a deadline.	A follow-up inspection is required once the deadline has passed.
Work-and-activity order	Requires the home to pay for the necessary work performed by the Ministry on the home's behalf to achieve compliance.	
Director's order	May withhold ministry funding to the home; order the home to return funding; require the home to retain a person to manage or assist in managing the home at the home's expense; and revoke a home's licence.	

Figure 4: Number of Enforcement Actions Taken by the Ministry, 2012–2014*

Source of data: Ministry of Health and Long-Term Care

Enforcement Action	2012	2013	2014
Written notification	1,650	1,490	4,030
Voluntary plan of correction	1,940	2,000	4,450
Compliance order	640	670	1,040
Work-and-activity order	0	0	0
Director's order	1	0	0
Total	**4,231**	**4,160**	**9,520**

* Based on calendar year. Data prior to 2012 is either incomplete or not available.

1.2.5 Summary of Key Events and Program Expenditures

Figure 5 summarizes the key events relating to the Program since the *Long-Term Care Homes Act, 2007* (Act) became effective in 2010. The Act stipulates that every long-term-care home must have an unannounced inspection at least once a year. Although the Act does not specify that the annual inspection is to be a comprehensive one, in June 2013 the then Minister of Health and Long-Term Care publicly committed to completing comprehensive inspections of all Ontario long-term-care homes by the end of 2014, and every year after that. The Minister's commitment was made in recognition that more frequent comprehensive inspections would help identify systemic issues in long-term-care homes.

Soon after the Minister's public commitment, the Ministry announced its plans to hire about 100 new inspectors in addition to the 80 inspectors it already employed. In July 2013, the Ministry began conducting comprehensive inspections of each of the approximately 630 homes across Ontario. The Minister's commitment was 95% achieved by the end of 2014 and fully achieved by the end of January 2015.

As a result of the significant changes to the Program since 2010 (see **Figure 5**), its expenditures have fluctuated over the past five years. **Figure 6** shows the changes in expenditures for the fiscal years from 2010/11 to 2014/15. Spikes during the first two fiscal years are mainly related to the cost of developing and implementing the information systems that support the new inspection process. The increases over the last two fiscal years are mainly related to the cost of hiring close to 100 new inspectors.

1.3 Other Key Players in the Long-term-care Home Sector

In addition to the Ministry, there are several other key organizations and stakeholders involved in various aspects of long-term-care homes. Each of them plays a key role in providing and/or supporting quality of care and quality of life for long-term-care residents. **Appendix 4** provides more detail on the key players and their roles in the long-term-care home sector. Some of the main stakeholders are as follows:

- The Ministry's Long-Term Care Homes Licensing and Program Unit is responsible for licensing long-term-care homes.
- Ontario's 14 Local Health Integration Networks (LHINs) fund and monitor the performance of long-term-care homes.
- Ontario's 14 Community Care Access Centres (CCACs) determine applicants' eligibility and manage the admission process to long-term-care homes.
- Health Quality Ontario is an agency funded by the Ministry to evaluate the effectiveness of health-care services.
- Municipal fire departments conduct inspections at long-term-care homes to enforce the Ontario Fire Code. The Office of the Fire Marshal and Emergency Management, under the Ministry of Community Safety and Correctional Services, monitors service levels of fire departments as part of its oversight role.
- Several other associations and advocacy groups provide a wide range of support and services for seniors, residents, family members of residents, physicians, and operators in long-term-care homes.

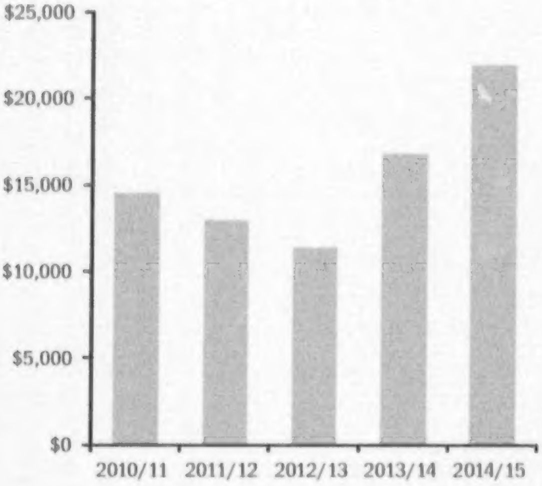
Figure 5: Long-Term Care Homes Quality Inspection Program, Key Events 2010–2015

Prepared by the Office of the Auditor General of Ontario

Date	Event
July 1, 2010	The *Long-Term Care Homes Act, 2007*, comes into effect. The Compliance Monitoring Program is renamed the Long-Term Care Homes Quality Inspection Program (Program).
February 2011	The Program launches a new two-stage comprehensive inspection process (see Appendix 3).
November 2012	The Program establishes a centralized intake unit to standardize the process for assigning complaints received from residents of long-term-care homes and their family members, and critical incidents reported by homes' operators to regional offices. (Before this, each regional office was responsible for handling the complaints and critical incidents reported for the homes in its region.)
June 2013	The Minister of Health and Long-Term Care publicly commits to conducting comprehensive inspections for all long-term-care homes by December 31, 2014, and annually after that. The Ministry commits to hiring about 100 new inspectors in addition to the 80 that the Program already employs.
July 2013	The Ministry begins its project to accelerate comprehensive inspections.
June 2014	The centralized intake unit develops an information system to track and assign all complaints and critical incidents received to regional offices.
December 31, 2014	The Program has conducted at least one comprehensive inspection at 95% of the 630 long-term-care homes across Ontario, largely meeting the Minister's June 2013 commitment.
January 31, 2015	Comprehensive inspections were completed for the remaining 5% of long-term-care homes.

Figure 6: Program Expenditures by Fiscal Year, 2010/11–2014/15

Source of data: Ministry of Health and Long-Term Care



2.0 Audit Objective and Scope

The objective of our audit was to assess whether effective systems and procedures were in place to:

- ensure that inspections of long-term-care homes are conducted efficiently and consistently across the province on a timely basis and in compliance with applicable legislative requirements; and
- measure and report on the effectiveness of the inspection program as it relates to the quality of care and quality of life for residents in long-term-care homes.

Senior management at the Ministry reviewed and agreed to our objective and associated audit criteria. We conducted our audit fieldwork from October 2014 to April 2015.

In conducting our audit, we reviewed applicable legislation, regulations, policies, information systems, case files, inspection reports and other relevant documents. We interviewed appropriate staff at the Ministry's head office, at the centralized intake unit and at all five regional offices. We also visited eight long-term-care homes, covering all five regions.

We met with representatives from Health Quality Ontario, as well as from several associations and advocacy groups, such as the Ontario Long Term

Care Association, Ontario Association of Non-Profit Homes and Services for Seniors, Ontario Association of Residents' Councils, Family Councils' Program, Advocacy Centre for the Elderly, and Ontario Long Term Care Physicians. These associations represent residents, families, physicians and long-term-care home operators across the province. We also met with the representatives from the Office of the Fire Marshal and Emergency Management and contacted several municipal fire departments to obtain a better understanding of their role in providing fire protection and prevention at long-term-care homes.

In addition to interviewing the residents' councils at the homes that we visited, we surveyed two key stakeholder groups—home administrators and family councils across the province—to get their perspectives on the Program and their experience with inspections conducted by the Ministry. The response rate was close to 30% from home administrators and 17% from the family councils.

We conducted research on similar inspection programs in other jurisdictions. We also engaged an independent expert with knowledge of the long-term-care home sector to advise us.

As part of our planning for this audit, we reviewed the Ministry's internal audit report on the inspection of trust accounts in long-term-care homes, and considered these audit findings when scoping our audit.

3.0 Summary

Since the *Long-Term Care Homes Act, 2007* (Act) came into effect in 2010, the Long-Term Care Homes Quality Inspection Program (Program) has undergone a number of changes to help ensure that homes comply with the legislation. Our audit found that delays by the Ministry in conducting complaints and critical-incident inspections and ensuring that homes correct deficiencies identified place residents at risk. We found that the Ministry often did not take timely action to ensure residents were safe and their rights were protected.

Since 2013, the Ministry has focused a great deal of its attention and resources—including the hiring of close to 100 new inspectors—on meeting the Minister's commitment of completing planned comprehensive inspections of approximately 630 long-term-care homes of the province by the end of 2014 and every year after that. At the same time, the Program has had to deal with a growing workload in other areas: addressing an increasing number of complaints and critical incidents at homes, following up on orders issued for non-compliance found in previous inspections, and reporting on inspection results.

The Ministry needs to strengthen its oversight of the Program to address the significant variations in inspectors' workloads, the number of compliance orders issued, and inspection and reporting timeliness across the province. Depending on the location of the home, residents' concerns might be inspected or followed up sooner, later or not at all. While the Canadian Institute for Health Information publishes quality-of-care indicators that are self-reported by long-term-care homes in Ontario, the Ministry did not link the information to its inspection results. Because the Ministry has neither monitored nor set targets for most aspects of the Program, it was unable to demonstrate the extent of the improvement that the inspection program has had on residents' quality of care and quality of life.

The following are some of our more significant findings:

- **Complaint and Critical-Incident Inspection delays place residents at risk**—While the commitment to conducting comprehensive inspections was met, the backlog of complaints and critical incidents was more than doubled—from about 1,300 as of December 2013 to about 2,800 as of March 2015. We found that 40% high-risk complaints and critical incidents that should have been inspected immediately took longer than three days; over a quarter of these cases took between one and nine months for inspection. Sixty percent of our sample of medium-risk cases that should have been inspected within 30 days took an average of 62 days. In one case, the Ministry received a complaint in 2014 from a concerned family about a resident whose bed lacked bed rails, but an inspection was only conducted over six months later, by which time the complaint could not be verified. As well, during that inspection, the inspector reported that another resident at the same home who also lacked bed rails had fallen at night and sustained a serious head injury.

- **The Ministry did not prioritize comprehensive inspections based on homes' risk level**—We found that only a few homes that were considered high- or medium-risk underwent comprehensive inspections from June to December of 2013. Furthermore, almost all comprehensive inspections of high-risk homes were performed relatively evenly throughout 2014. If the Ministry prioritized the inspections based on risk, the issues identified by the Ministry later in the year could have been prevented or rectified by the homes sooner. The Ministry informed us that the primary reason it had not inspected higher-risk homes first was because lower-risk inspections provided training opportunities for new inspectors hired at the beginning of the year.
- **Homes are given inconsistent timelines to rectify issues identified by inspectors**—The Ministry does not provide clear guidance on how much time long-term-care homes should be given to comply with orders. For example, in 2014, inspectors in one region gave homes an average of 34 days to comply with orders relating to key risk areas (such as carrying out a resident's plan of care, protecting residents from abuse and neglect, and providing a safe, secure, and clean home), while inspectors in another region gave homes an average of 77 days to comply with similar orders. The Ministry could not explain the variance because it does not track and compare such information between regions.
- **The Ministry has not properly conducted secondary review of cases initially deemed not to require inspections**—The Ministry did not regularly conduct secondary reviews of the almost 10,800 complaints and critical incidents received in 2014 to ensure they were appropriately closed without inspection. This presents a risk that cases are being closed without the Ministry verifying that homes had taken proper action, were in compliance with the Act, and that residents' quality of care and quality of life were protected. Our survey of the family council representatives who had filed a complaint with the Ministry indicated that approximately 80% of them were not satisfied with how the cases were addressed by the Ministry. Reasons cited include no investigation took place and/or the outcome was never communicated back to the complainant.
- **Situations placing residents at risk are not followed up by the Ministry in a timely manner to ensure resolution**—The Ministry does not have an effective process for monitoring compliance orders that require follow-up. Specifically, two-thirds, or about 380, of compliance orders due in 2014 had not been followed up within the Ministry's informal 30-day target. On average, it took the Ministry two months after an order's due date to perform a follow-up inspection. For example, the Ministry issued a compliance order in January 2014 relating to a sexual harassment case; however, the Ministry did not follow up until eight months later when it found the home was still not in compliance. In another case, the Ministry did not follow up for over four months on a compliance order relating to a staff member verbally and physically abusing residents in 2014. In both cases, the inspectors had to re-issue new compliance orders to the homes for protection of the residents.

- **The Ministry's actions are not sufficient to address the repeated non-compliance in certain long-term-care homes**—We noted that homes in one region did not comply with almost 40% of the compliance orders issued by the Ministry in 2014, while homes in another region did not comply with about 17% of orders. The Ministry did not know the reasons why the homes repeatedly failed to correct certain deficiencies.
- **Inspection timeliness and effectiveness varies across the province**—We found that the timeliness of the whole inspection process (which we have defined as, from the receiving of complaints or critical incidents to conducting follow-up inspections) varied significantly across the province. In 2014, the Hamilton and Toronto regions took almost twice as long as the London region to complete the whole inspection process. Our analysis indicated that the Hamilton region issued, on average, 75% more compliance orders than the London region, which contributed to longer inspection times. Furthermore, the primary cause for inspection delays in the Toronto region was due to staffing and management issues, which resulted in it having the largest backlog of complaints and critical incidents.
- **Ontario legislation does not require a minimum front-line-staff-to-resident ratio at long-term-care homes**—Home administrators identified insufficient staffing and training as the main reasons for their failure to achieve compliance. In 2014, long-term-care homes provided an average of 3.4 direct care hours per resident per day, while the Ontario Association of Non-Profit Homes and Services for Seniors recommends four hours. Home administrators also said that the provincial funding of $7.87 per resident per day is not sufficient to meet residents' nutritional needs (three meals plus two snacks).
- **The Ministry does not consolidate useful quality-of-care information along with inspection results on long-term-care homes**—Apart from the Ministry's inspection program, other organizations report on the quality of long-term-care homes, covering indicators such as wait times, direct-care hours per resident per day, and the use of physical restraints and anti-psychotic drugs. The Ministry has made no attempt to consolidate and publish its inspection results with other useful information available, such as reports by Health Quality Ontario and Canadian Institute for Health Information. This information would help to provide a complete picture of how well a home is performing compared to other homes or compared to the provincial average.
- **The Ministry needs to pay more attention to fire safety at long-term-care homes**—The Ministry confirmed that 30% of Ontario long-term-care homes did not have automatic sprinklers installed as of March 2013. Furthermore, at the end of our audit, the Ministry still had no information on whether these 200 homes (representing over 20,000 residents) were complying with the Fire Code requirements aimed to reduce risk in dwellings with no automatic sprinkler systems. Municipal fire departments are responsible for attending fire drills and conducting fire inspections at long-term-care homes, but there is no formal protocol to share inspection results with the Ministry on a regular basis. By sharing the fire inspection results, the Ministry and municipal fire departments can better ensure that homes are assisted in correcting the fire safety deficiencies or, if necessary, the Ministry would have the knowledge to be able to intervene and relocate residents from unsafe homes in a timely manner.

This report contains 13 recommendations, consisting of 30 actions, to address the findings noted during this audit.

OVERALL MINISTRY RESPONSE

The health, safety and well-being of residents in Ontario's Long-Term Care (LTC) Homes are of paramount importance to the government of Ontario. Long-term care homes are the *homes* of over 77,000 people. In these dwellings residents can continue to live with dignity, security, safety and comfort, and have their physical, psychological, social, spiritual and cultural needs met. As such, the Ministry welcomes and appreciates the comprehensive audit conducted by the Auditor General on the Long-Term Care Homes Quality Inspection Program. The recommendations in this report will be used to build upon existing success and will support continuous quality improvement.

The *Long-Term Care Homes Act, 2007* (Act) came into force on July 1, 2010. The Act and Ontario Regulation 79/10 were developed to improve the resident experience and quality of life in LTC homes. The Act sets clear and detailed standards for residents' rights, care and services, and for the operation of LTC homes.

Within the context of the Act, the Ministry has transformed the inspection process to achieve a more accountable, consistent and transparent compliance inspection program that focuses on risk issues and resident-care outcomes. The Long-Term Care Homes Quality Inspection Program (Program) safeguards resident rights, safety, and quality of care through various types of inspections including comprehensive inspections, complaint and critical-incident, and follow-up inspections.

Since the implementation of the Act, the Ministry has completed over 12,900 inspections and over 1,100 comprehensive inspections. Ministry inspectors have a duty under the Act to identify in an inspection report all non-compliances found during the course of an inspection.

To comply with the requirements of the Act, the Ministry launched a refreshed public website in February 2012. This site contains links to the public versions of all inspections reports and orders related to inspections conducted in LTC homes across the province since July 1, 2010.

The Ministry is continually working to refine and improve the Program to ensure its effectiveness and, ultimately, to provide security, safety, and comfort to its residents. The Program has experienced significant growth of 150% over the past 18–24 months with the addition of up to 100 new inspectors. This has enhanced the Ministry's ability to complete more timely inspections; it has also helped meet the government's commitment as noted above. The Ministry implemented IT improvements in 2015 to support management reporting. These improvements will help the Program better address the recommendations of the Auditor General.

In recognition of the important role that LTC homes play in the health care system, subsequent to the audit the Ministry created a new Long-Term Care Homes Division which came into effect October 2015. As part of the new division, a new LTC Homes Inspection Branch was also established to help the Ministry ints continued focus on resident care and safety and to enhance program oversight.

4.0 Detailed Audit Observations

4.1 The Ministry Is Slow in Addressing Complaints and Critical Incidents at Long-term-care Homes

4.1.1 Inadequate Resource Planning has Contributed to a Backlog of Complaint and Critical-incident Inspections

The Minister's commitment to perform comprehensive inspections of the roughly 630 long-term-care homes in the province was met by January 2015. But that meant the Program had fewer resources available for other types of inspections. At the same time, the Ministry has received a significant increase in complaints and critical incidents requiring inspections—from approximately 3,640 in 2013 to 5,440 in 2014. The result is a serious backlog.

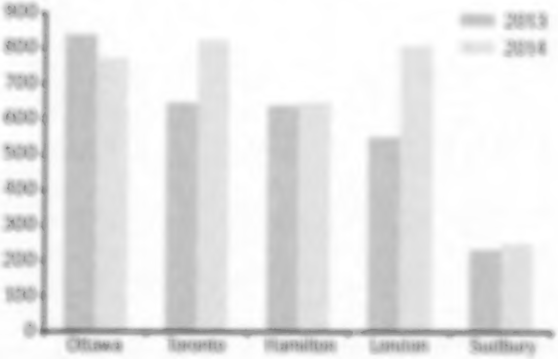
Backlog of Complaint Inspections

As of March 31, 2015, the Ministry had about 960 complaints outstanding, an amount that has increased by almost 70% (from about 570) since December 2013. The increased backlog mainly stems from a greater number of complaints received and those requiring inspections.

- In 2014, the Ministry received a 13% increase in complaints—from about 2,910 in 2013 to about 3,300 in 2014. The London region, in particular, had experienced the most significant increase—a 47% increase in complaints between the two years (see **Figure 7**). The Ministry indicated that the increase was due to an improved public awareness, a reflection of the Minister's heightened commitment to these matters. However, the Ministry could not explain why the London region had experienced the most increase in complaints compared to the other regions. Our further analysis indicated that it could relate to the difference in quality of care across the province. Based on the information reported by the Canadian Institute for Health Information, we noted that, for example, the results of eight out of nine quality of care indicators at long-term-care homes in the London region were below the provincial average in 2013/14.
- The Toronto region experienced a 26% increase in complaints from about 650 cases in 2013 to about 820 cases in 2014. The increase was primarily due to the geographic re-allocation of the 23 long-term-care homes (representing approximately 4,500 residents) from the Ministry's Ottawa regional office to the Toronto regional office in 2014.
- As the Ministry received a higher number of complaints in 2014, the number of these cases requiring inspections also increased by 31%, from approximately 1,600 cases in 2013 to approximately 2,100 cases in 2014. The Ministry assessed that of the 2,100 complaints requiring inspections, 2%, 53%, and 45% were high-, medium-, and low-risk, respectively, as shown in **Figure 8**. **Figure 9** indicates that the most frequent public complaints

Figure 7: Number of Complaints Received, by Region, 2013 and 2014*

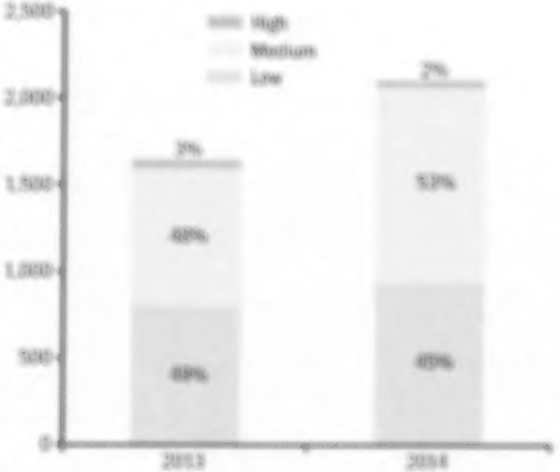
Source of data: Ministry of Health and Long-Term Care



* Based on calendar year. Regional data prior to 2013 is not available because the Ministry did not track the information.

Figure 8: Number of Province-wide Complaints Requiring Inspections, by Risk Level, 2013–2014*

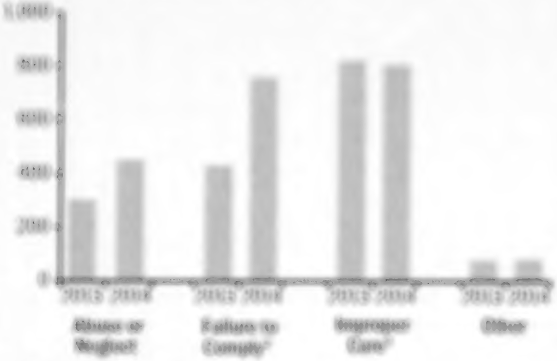
Source of data: Ministry of Health and Long-Term Care



* Based on calendar year. Data prior to 2013 is not available.

Figure 9: Number of Province-wide Complaints Requiring Inspections, by Category, 2013–2014[1]

Source of data: Ministry of Health and Long-Term Care



1. Based on calendar year. Data prior to 2013 is not available.
2. Failure to Comply: issues related to home operations (e.g., emergencies, outbreaks, infection control, safe and secure home, and staffing and care standards).
3. Improper Care: issues related to direct resident care (e.g., pressure ulcers, physical restraints, weight loss, bowel or bladder incontinence, pains, falls, responsive behaviours and medication misappropriation).

were of homes not providing proper care to residents or not meeting other operational standards such as in handling emergencies, outbreaks, and infection control.

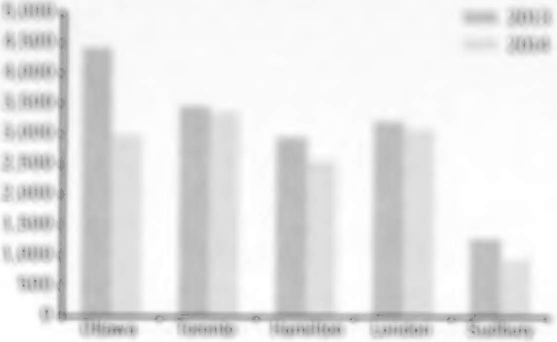
Backlog of Critical Incident Inspections

The Ministry also had a backlog of critical incident inspections. As of March 31, 2015, the Ministry had about 1,840 critical incidents outstanding, an amount that has increased by more than two and a half times (from about 700) since December 2013. The increased backlog mainly stems from a greater number of critical incidents requiring inspections.

- In 2014, the Ministry determined that about 3,340 critical incidents should be inspected (from 2,040 in 2013) despite long-term-care homes in all regions self-reporting a fewer number of critical incidents in 2014 than in 2013 (see **Figure 10**). In late 2013, the Ministry revised the reporting requirements for critical incidents. For example, homes do not need to report every instance that a resident is taken to a hospital if his/her health did not change significantly.

Figure 10: Number of Critical Incidents Reported by Long-term-care Homes, by Region, 2013 and 2014*

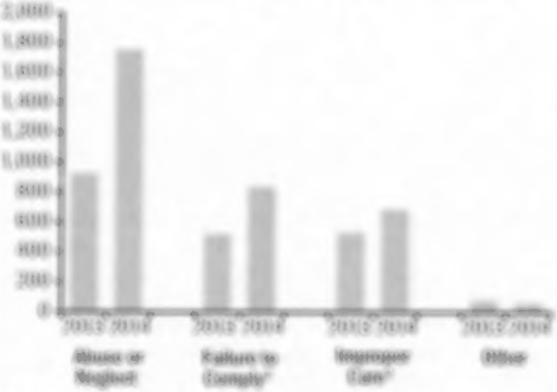
Source of data: Ministry of Health and Long-Term Care



* Based on calendar year. Regional data prior to 2013 is not available because the Ministry did not track the information.

Figure 11: Number of Province-wide Critical Incidents Requiring Inspections, by Category, 2013–2014[1]

Source of data: Ministry of Health and Long-Term Care



1. Based on calendar year. Data prior to 2013 is not available.
2. Failure to Comply: issues related to home operations (e.g., emergencies, outbreaks, infection control, safe and secure home, and staffing and care standards).
3. Improper Care: issues related to direct resident care (e.g., pressure ulcers, physical restraints, weight loss, bowel or bladder incontinence, pains, falls, responsive behaviours and medication misappropriation).

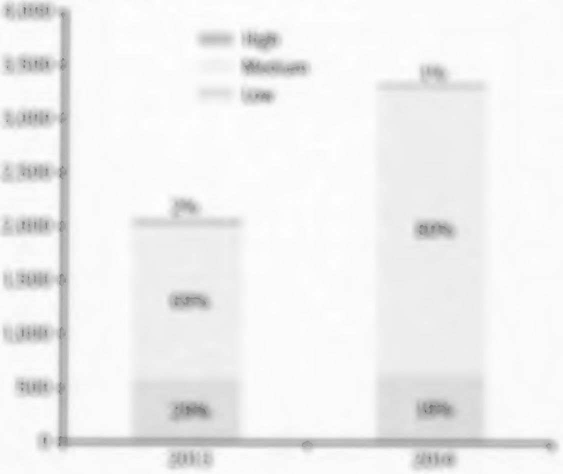
- In 2014, the majority of critical incidents requiring inspections was in the abuse and neglect category, a number that had increased by 90% from about 920 cases in 2013 to about 1,750 cases in 2014 (see **Figure 11**). The increase is primarily due to the homes being better trained by the Ministry on their obligation to report abuse and neglect cases. Because the homes reported a greater number of abuse and neglect critical incidents in 2014, many of those cases that warranted an inspection were assessed as medium risk by the Ministry as shown in Figure 12.

As of March 31, 2015, four of the five regional offices had complaints or critical incidents that had been outstanding for more than a year with no inspection. The number of such cases per office ranged from two at one office to 94 at another.

We found that the Ministry had not undergone a thorough analysis of the projected and actual workload in each region before deciding to hire an additional 100 inspectors in July 2013. Instead, the decision was based solely on the resources the Ministry estimated would be needed to meet the Minister's commitment of conducting comprehensive inspections of every home by the end of 2014. As such, it didn't take into account the Program's other responsibilities, such as conducting complaint, critical incident and follow up inspections, as well as reporting inspection results. Once the Ministry realized it had insufficient staff to meet both the Minister's commitment and the growing backlog of complaint, critical incident and follow up inspections, in September 2014 it approved the hiring of an additional 24 employees, including 12 inspectors and 12 administrative staff.

Figure 12: Number of Province-wide Critical Incidents Requiring Inspections, by Risk Level, 2013–2014*

Source of data: Ministry of Health and Long-Term Care



* Based on calendar year. Data prior to 2013 is not available.

4.1.2 Complaint and Critical Incident Inspection Delays Place Residents at Risk

The Ministry's policy is to conduct inspections of homes with complaints and critical incidents in accordance with their risk level: high risk cases should be inspected immediately and medium risk cases within 30 days. We found that the Ministry was not always meeting its targets.

We reviewed all high risk and a sample of medium risk complaints and critical incidents in 2014 and found that about 40% of high risk cases and about 60% of medium risk cases had not been inspected on a timely basis. Forty percent of the high risk cases that we reviewed should have been inspected immediately but took longer than three days; over a quarter of the 40% high risk cases took between one and nine months for inspection. We also found that medium risk cases in our sample that should have been inspected within 30 days took an average of 62 days. We noted some cases where inspection delays had negatively impacted residents' quality of care and quality of life:

- The Ministry was informed of a high risk critical incident in August 2014 relating to a resident who had difficulty swallowing and died from choking while eating under the supervision of a long-term care home staff member. An inspection took place over three months later because no inspectors were available until then. During the inspection, the inspector found that the home had failed to prepare a care plan (a care plan or plan of care sets out clear directions to staff covering how a resident's care, such as medical, nursing, personal support and dietary care, should be delivered) to ensure that the resident was eating safely. The inspector also found seven other incidents where orders from residents' physicians and dieticians were not followed, which increased the risk of harm to these residents.

- In August 2014, the Ministry received a medium risk complaint about a resident whose family believed he/she was unsafe due to sleeping in a bed that lacked bed rails. No inspection took place until February 2015, more than six months later, by which time the complaint could not be verified because the resident had passed away. As well, during the inspection, the inspector reported that another resident who also lacked bed rails had fallen at night and sustained a serious head injury.
- In May 2014, the Ministry received a critical incident report relating to the alleged physical abuse of a resident by a home's staff member. Yet, no inspection took place until February 2015—more than eight months later. The Ministry informed us that the inspection had been delayed because of insufficient resources, and that it was told the home had put the staff member on paid leave. However, without performing an inspection, the Ministry could not ensure that the action was actually taken by the home or that it was providing adequate training for its staff on residents' rights. When the inspection finally did take place, the inspector issued an order that required the home to provide staff with training on abuse policy and residents' rights.

We also found little consistency from one region to the next in terms of the time it takes to complete each step of the inspection process—which we have defined as, from receiving a complaint or critical incident to performing an inspection; from the inspection end date to the completion of the inspection report; from the date an order is issued to its due date; and from an order's due date to the date of performing a follow up inspection. Because the Ministry does not track the inspection process from beginning to end, we used the best information available to estimate the time it took to complete medium risk complaint or critical incident inspections in each region. We found that, depending on where a medium risk complaint or critical incident originated, the Ministry took between 126 days (or about four months) to 248 days (or about eight months) to complete the entire inspection process, with the provincial average 188 days (or about six months), as shown in **Figure 13**.

We found that the Hamilton and Toronto regions took almost twice as long as the London region to complete the whole inspection process. Upon further analysis, we noted that the Hamilton region issued, on average, 75% more compliance orders than the London region, which led to longer inspection times. We also found that the primary cause for inspection delays in the Toronto region was due to staffing and management issues, which resulted in it having the largest backlog of complaints and critical incidents—fives times more than the London region.

RECOMMENDATION 1

To ensure that the Program significantly improves the timeliness of inspecting complaints and critical incidents, the Ministry of Health and Long-Term Care should:

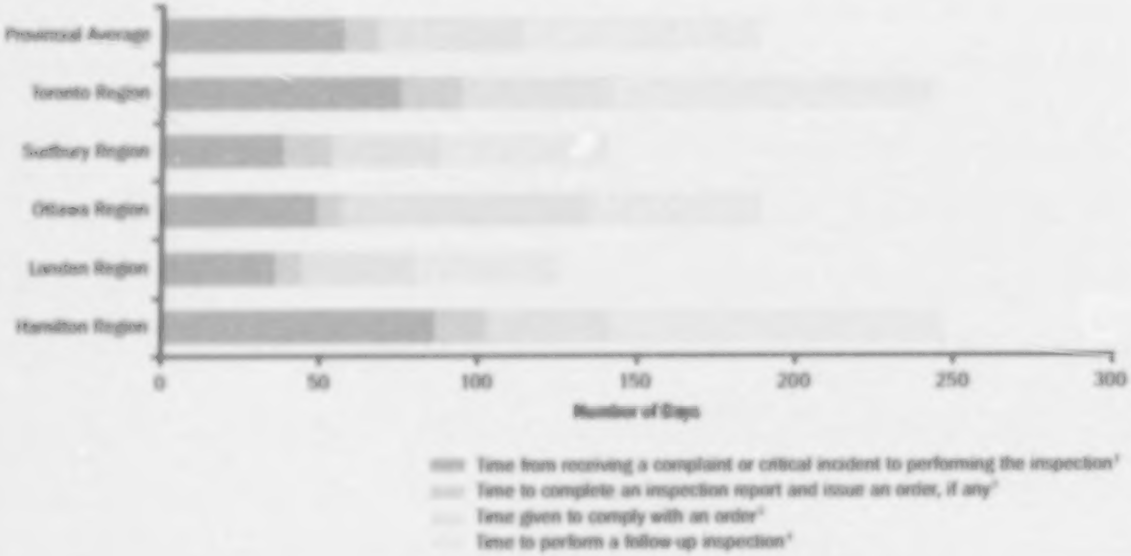
- identify the reasons for the significant fluctuation in the number of complaints and critical incidents as well as cases requiring inspection;
- collect and analyze all the information needed (including total projected workload, the number of inspectors available compared to demand, inspection duration and timeliness, regional circumstances, and other risk factors) to develop a detailed resource plan and distribute resources accordingly; and
- regularly monitor and evaluate the resource plan against actual performance to determine if further action is required.

MINISTRY RESPONSE

The Ministry accepts this recommendation and has established criteria for the Centralized

Figure 13: Estimated Average Number of Days the Ministry takes to Complete the Inspection Process (from Receiving a Medium-risk Complaint or Critical Incident to Conducting a Follow-up Inspection) by Region, 2014[a,b]

Prepared by the Office of the Auditor General of Ontario



a. Because the Ministry of Health and Long-Term Care does not track the inspection process from beginning to end, we used the following sources of data/assumptions to create this figure:

1. The time from receiving a complaint or critical incident to performing the inspection. It is based on a sample of inspections for medium-risk complaints and critical incidents.
2. The time from the end of an inspection to the inspection report completion date. It is based on a sample of complaint inspection reports, critical-incident inspection reports and follow-up inspection reports.
3. The time from the date an order is issued to the date the non-compliance must be rectified by the home. It applies to orders in "key risk areas" identified by the Ministry.
4. The time from the date an order is due to the date of performing a follow-up inspection to ensure compliance of the order. It includes all orders that call for a follow-up inspection.

b. Based on calendar year.

Intake Assessment and Triage Team's (CIATT) assessment of all critical incidents and complaints. Using these criteria, the CIATT will be able to determine potential legislative or regulatory non-compliance with one or more of the requirements in the Act and, if necessary, the potential risk to one or more residents associated with the complaint or critical incident.

The CIATT utilizes the established criteria and program policies and procedures to determine whether a critical incident or complaint needs to be triaged to the respective regional office for inspection. As well, the Ministry has recently implemented a formal audit of a random sample of cases to ensure the criteria, policies and procedures are applied consistently.

The volumes of complaints and critical incidents vary from month to month. Fluctuations in numbers of complaints or critical incidents being identified as requiring inspection is expected, as every case is assessed individually and decisions on inspection will differ based on the specific set of circumstances associated with the case.

The Ministry will conduct an analysis of the current organizational structure of its Long-Term Care Homes Quality Inspection Program (Program). This will include an analysis of staff and management complements and workload, intake functions, administrative functions, specialized resources and operating budget, as well as strengths, opportunities and risks of the current program structure.

This analysis will inform potential organizational strategies to support a more efficient deployment of program resources, more manageable workload, the sustainability of the program, and promote provincial consistency in the management and delivery of the program.

Included in the organizational strategies will be an evaluation plan to ensure there is regular evaluation of the resources against program requirements to determine if further action is required.

4.2 Tracking of Complaints and Critical Incidents is Inconsistent and Inadequate

4.2.1 The Ministry Is Not Tracking Complaints and Critical Incidents Effectively

We found that the Ministry did not know how many inspections were overdue or for how long because it does not have an effective system in place to track complaints and critical incidents that require inspections. Also, inconsistent practices from one region to another mean that inspection timelines differ widely across the province. For example, one region took, on average, 36 days to conduct medium-risk complaint and critical-incident inspections, while another took 86 days, far exceeding the Ministry's 30-day target for medium-risk inspections. During our visits to the five regional offices and discussions with program staff, we found the following:

- The electronic logs for tracking complaints and critical incidents used in regional offices are prone to human error and do not flag when key information is missing. For example, regional offices did not always note the risk level of a complaint or critical incident in their tracking logs. Without this information, the Ministry has no way of effectively demonstrating that higher-risk cases, such as abuse and neglect incidents that place residents in immediate jeopardy, are being addressed within an appropriate time frame. We found that, of the approximately 2,800 complaints and critical incidents outstanding as of March 31, 2015, about 800 (or 30%) did not have a risk level assigned to them.
- None of the regional offices track and monitor the number of complaints and critical incidents that are past due for inspection. Based on our own calculations, we found that, for the 2,000 cases that did have a risk level noted, about 1,200 (or 60%) were past their inspection time frame. Close to 90%, or 1,070, of the complaints and critical incidents that were overdue as of March 31, 2015 were assessed by the Ministry to be medium-risk.
- Although the logs for tracking complaints and critical incidents are standardized for all regions, their use was inconsistent. One regional office had missing fields in its tracking log, another maintained two separate logs and a third was using its own internally developed tracking system. Inspector team leads in each regional office may also use their judgement in prioritizing and assigning complaints and critical-incident inspections. We found their methods varied widely. For example, one regional office's informal policy is that all low-risk complaints should be inspected within 30 days of receiving them. (The Ministry has no policy regarding when to inspect low-risk cases, but has set an informal target of 120 days, which can be followed at each regional office's discretion.) The other four regional offices schedule inspections based primarily on risk, regardless of the order in which they were received. One regional office informed us that, for the sake of efficiency, it did not conduct separate inspections for medium-risk complaints and critical incidents, inspecting them instead when it was time for the home's annual comprehensive inspection. In this region,

the Ministry's 30-day inspection target for medium-risk cases was often not followed.

4.2.2 The Ministry Has Not Reviewed Cases That Were Closed Without Inspections

In 2014, the Program's centralized intake unit determined that only about one-third of the approximately 16,240 complaints and critical incidents required an inspection. We reviewed a sample of the remaining two-thirds of complaints and critical-incident cases that had been closed without inspection and found that 65% of them had insufficient documentation to show why an inspection was not required. After a further review of the case details, we found the decision not to inspect could be justified for half the cases, but it was not clear why an inspection had not been required for the other half. This presents a risk that cases are being closed without the Ministry confirming the homes had taken proper action, the homes are in compliance with the Act, and that residents' quality of care and quality of life are protected. In addition, the Ministry did not always contact the family members to ask if they were satisfied that any problems or concerns affecting the residents were resolved appropriately.

For example, the Ministry closed a complaint received in May 2013 without an inspection. The complaint was from a resident's family member who was concerned about the resident's loss of appetite, vomiting and weight loss. The family member requested twice that the resident be examined at a hospital. But the Ministry could not demonstrate it had made sufficient efforts to ensure the resident was properly cared for and that the complainant was satisfied with the result. We noted another example where the Ministry closed a critical-incident case, reported in April 2015, without an inspection. The Ministry did not contact the family member to confirm that they were satisfied with the result. Instead, the Ministry relied solely on the report filed by the home claiming that it had resolved the case appropriately. Believing the critical incident was much more serious than the home reported, the family member was later surprised to hear that the Ministry decided not to perform an inspection. Subsequently, the family filed a formal complaint alleging the home did not treat the resident with respect when handling the critical incident.

Our survey of family council representatives conducted in March 2015 indicated that approximately 80% of those who had filed a complaint with the Ministry were not satisfied with the outcome. Reasons cited included lack of investigations and outcomes not being communicated back to complainants. The Ministry's policy requires inspectors to report back to complainants on the outcomes of their inspections, but we found no documentation in the Ministry's tracking system to show that this had been done for over 20% of the files we examined.

RECOMMENDATION 2

To better track, prioritize and monitor the handling of complaints and critical incidents, the Ministry of Health and Long-Term Care should:

- perform periodic secondary reviews of complaints and critical incidents received by the Program's centralized intake unit to ensure that reasons for not conducting an inspection are justified and documented;
- track and monitor complaints and critical incidents that are overdue for inspections;
- clarify expectations on how to prioritize and when to inspect complaints and critical incidents to ensure consistency throughout the province; and
- inform complainants and the family members of inspection results or why an inspection was not conducted, and document the action taken.

MINISTRY RESPONSE

The Ministry supports this recommendation and has introduced business processes and procedures as of June, 2015 to formalize the review process (random audit samplings). Currently, the CIATT manager conducts random audits of all cases (closed and triaged for inspection) and addresses any identified concerns with CIATT staff. Information gathered through the randomized audit process will inform quality improvement opportunities including training and updates to policies and procedures.

The Ministry tracks the number of new and yet to be inspected complaints and critical incidents on a monthly basis. In May 2015 changes were implemented in the Intake Application to allow reporting of additional fields, including target dates for inspection along with their risk level. This allows reports to be generated, identifying which intakes are overdue for inspection. As of September 2015, this data has been reported from the Intake Application. Regional offices' staff are being trained to run the reports. This will be in place for all regional offices with standardized business processes by November 2015.

Criteria related to prioritizing inspections is outlined in the policy, shared with all inspectors during orientation and reinforced during CIATT/regional office staff meetings as required. The Ministry will review the current policy to identify any opportunities for further guidance for inspectors in order to support a consistent approach across the province.

The current policy requires inspectors to contact the complainant after the inspection to let them know the results of an inspection. This policy is reinforced through the training of inspectors and monthly regional office meetings, as required. At CIATT, complainants are informed that, where their concern is not covered by the Act, an inspection will not be conducted. In these cases complainants are advised on alternative resources (where appropriate) to help them address their issue. There are also situations, determined either by CIATT or at the regional offices, where sufficient information has been gathered to determine that an inspection is not required. The policy will be updated to formalize the requirement to inform the complainant if an inspection will not be conducted.

4.3 Comprehensive Inspections Are Not Prioritized By Risk

Given that the Ministry had to conduct a comprehensive inspection of every long-term-care home by the end of 2014 to meet the Minister's commitment, we expected that it would have a system in place to prioritize inspections of higher-risk homes within the targeted time frame. However, we found that higher-risk homes were not being inspected before lower-risk homes.

When we reviewed the actual sequence in which homes received comprehensive inspections, we found that very few medium- and high-risk homes had been inspected from June 2013 to December 2013; instead, almost all comprehensive inspections of high-risk homes were performed relatively evenly throughout 2014. The Ministry informed us that it did use a risk-based framework to schedule comprehensive inspections. This framework is supposed to assign a risk level to each home using factors such as the number of complaints and critical incidents, the number of orders the home had been previously issued, and a quarterly risk report that includes an assessment of every home in the province. However, we did not find that the Ministry had conducted inspections based on its own risk levels.

If the Ministry prioritized the inspections based on risk, issues at homes that were later identified by the Ministry could have been prevented or rectified by the homes sooner. We found that the Ministry inspected over 50 higher-risk homes after the first half of 2014 which resulted in close to 90 orders issued to these homes. For example, the Ministry found that numerous homes had failed to update and/or follow residents' plan of care which contributed to the residents sustaining injuries such as bone fractures from falls. At one home, the inspectors found that residents were suffering increased level of pain because the home had insufficient nursing staff to reassess residents' medical needs. At a few other homes, inspectors found that home staff refused to provide residents with basic care such as bathing, maintaining oral hygiene and bringing residents to the washroom.

The Ministry informed us that the primary reason higher-risk homes had been inspected later was because training opportunities were needed for new inspectors, so the Ministry had them perform inspections at lower-risk homes at the beginning of the year.

We found that the Ministry's new comprehensive inspection process was an improvement over its previous inspection program. The two-stage inspection process, which was implemented in February 2011, is more extensive than those in other provinces. For example, inspection procedures are now standardized for improved consistency; inspectors conduct interviews and record reviews and observations using a statistically representative sample of residents; and automated systems help ensure that high-risk areas are inspected as needed. However, given the increase in complaints and critical incidents requiring inspections (see **Section 4.1**) and the extensive resources that are required to complete a comprehensive inspection, the Ministry needs to better prioritize comprehensive inspections, allocate resources more efficiently and assess the frequency of comprehensive inspections based on risk.

RECOMMENDATION 3

To put the safety of residents first by focusing on high-risk areas, the Ministry of Health and Long-Term Care should:

- prioritize comprehensive inspections based on long-term-care homes' complaints and critical incidents, compliance history and other risk factors; and
- consolidate past inspection results and conduct a cost-benefit analysis to determine the frequency in which comprehensive inspections should take place in the future.

MINISTRY RESPONSE

The Ministry accepts this recommendation and currently has a Risk Management Framework that sorts all homes in risk priority based on an established number of factors. The factors include: compliance history, complaint and critical-incident inspections resulting in non-compliance, qualitative information (e.g., leadership turnover) and other risk factors. Comprehensive inspections are scheduled based on a number of factors including: risk level of the home, inspector experience and availability, and geographic considerations. Regional office managers review this information quarterly and assign/reassign comprehensive inspections based on the above factors.

The Ministry is evaluating options to consider a focused, comprehensive inspection which would be shorter and less resource intensive for homes that are substantially compliant and lower risk.

4.4 The Ministry Needs to Pay More Attention to Fire Safety at Long-term-care Homes

Ministry inspectors do not examine a long-term-care home's fire safety measures as part of their comprehensive inspections unless a fire has been reported by the home, a resident or the public. If an incident or complaint triggers the inspector to review the emergency management process, inspectors will determine whether the home has written plans to deal with emergencies such as fires and other disasters, and the evacuation and relocation of residents and staff.

According to the Ministry, a home-reported survey found that 30% of long-term-care homes did not have automatic sprinkler systems as of March 2013. This represents about 200 homes that accommodate over 20,000 residents across the province. Furthermore, the Ministry did not know whether these 200 homes were complying with Fire Code requirements aimed at reducing risk in buildings where automatic sprinkler systems are not in place, such as having a fire safety plan approved by the local fire department and carrying out annual fire drills and mock evacuations. By the end of our audit, the Ministry, which funds and regulates long-term-care homes, could not provide us with an updated list of long-term-care homes that had been retrofitted to have automatic sprinklers installed since 2013.

Municipal fire departments are responsible for attending fire drills and conducting fire inspections at long-term-care homes, but there is no formal protocol in place for sharing their inspection results with the Ministry. By sharing fire inspection results, the Ministry and municipal fire departments can better coordinate efforts to assist homes in correcting the fire safety deficiencies or, if necessary, to relocate residents from unsafe homes in a timely manner.

On January 1, 2014, Ontario made comprehensive changes to its fire safety regulations. All vulnerable occupancies (any residence that houses the vulnerable population), which include long-term-care homes, will be required to have fire safety measures, such as automatic sprinkler systems, in place. Municipal fire departments are responsible for ensuring that, by January 2025, long-term-care homes meet the new fire safety standards, including the installation of automatic sprinklers.

We acknowledge that the Ministry has, since 2014, put in place a strategy to help home operators redevelop approximately 300 older homes to bring them up to the most current design standards. However, the 2025 compliance timeline is still about 10 years away from the time of our audit. The Ministry should consider the impact of the homes not having automatic sprinklers installed and ensure that the residents and family members are aware of the situation if their long-term-care homes have not yet been equipped with an automatic sprinkler system.

RECOMMENDATION 4

To mitigate the risk of fire at long-term-care homes, the Ministry of Health and Long-Term Care should work with the Office of the Fire Marshal and Emergency Management and municipal fire departments to establish a formal protocol to regularly share information with the Ministry on homes' non-compliance with fire safety regulations, focusing on homes that do not yet have automatic sprinklers installed.

MINISTRY RESPONSE

The Ministry supports this recommendation and recognizes that the Fire Marshal, local fire departments, and the Chief of Emergency Measures have jurisdiction over inspections for fire and safety measures.

The Ministry has an established relationship with the Office of the Fire Marshal and Emergency Management and will engage with the Office to explore opportunities to develop a formal protocol where the Ministry will be notified should there be significant risks related to fire safety identified in a home.

4.5 Long-term-care Homes are Given Inconsistent Deadlines to Rectify Issues

The Ministry does not provide clear guidance on the appropriate length of time that inspectors should give long-term-care homes to comply with orders to correct issues identified during inspections. Although each case is different, depending on the types and areas of non-compliance and the circumstances surrounding the home, we expected to see some consistency in the time frames given to comply with orders of similar risk and non-compliance areas. Instead, we found that time frames varied widely by region. For example, in 2014, inspectors in one region gave homes an average of 34 days to comply with orders relating to key risk areas (such as carrying out a resident's plan of care, protecting residents from abuse and neglect, and providing a safe, secure and clean home) and respecting the Resident's Bill of Rights (the Act lists 27 rights that residents are entitled to, such as the right to be treated with courtesy and respect, the right to be protected from abuse and the right not to be neglected). Meanwhile, inspectors in another region gave the homes an average of 77 days to comply with similar orders.

The Ministry has not tracked and compared the different information between regions and could not provide reasons for the variations that we found.

RECOMMENDATION 5

To ensure residents across the province are equally protected by the *Long-Term Care Homes Act, 2007*, the Ministry of Health and Long-Term Care should:

- establish a clear policy and guidelines for inspectors to use in determining an appropriate time frame for homes to comply with orders addressing similar risk and non-compliance areas; and
- periodically review whether the policy and guidelines are being followed consistently by regional offices.

MINISTRY RESPONSE

The Ministry accepts this recommendation. The Ministry, through policy, has a judgement matrix tool to guide inspectors in making decisions about what action/sanction (e.g., order) to apply when there's a finding of non-compliance.

Orders are typically issued in areas that pose a higher risk to residents or as a result of recurring non-compliance. While orders may be issued under a similar section or subsection of the legislation, the circumstances and set of facts that give rise to the issuance of the orders are unique.

The Ministry will review and refine related policies to provide criteria/additional guidance to inspectors to promote greater consistency in the time frames for compliance of orders where the orders address similar risk and non-compliance areas.

The Ministry will develop an audit mechanism to periodically review the consistency with the revised policy across the regional offices.

4.6 The Ministry's Actions Are Not Sufficient to Deter Homes from Repeating Non-Compliance

4.6.1 Homes Are Struggling with Similar, Serious Compliance Issues

There are over 50 different areas in which homes have failed to comply with an order, with ten areas accounting for nearly 50% of all these cases. **Figure 14** shows the top 10 areas where orders have been re-issued from follow-up inspections conducted in 2013 and 2014. Several areas within the top 10 are serious, what the Ministry calls "key risk areas": failing to carry out a resident's plan of care, failing to protect residents from abuse and neglect, failing to provide a safe, secure and clean home, and failing to respect the Resident's Bill of Rights. Eight of the 10 areas in 2013 re-appeared in the top 10 list in 2014.

We found that, even when the Ministry deemed an instance of non-compliance to be serious enough to warrant a compliance order, long-term-care homes were often not taking the necessary steps to become compliant. In 2014, the Ministry performed follow-up inspections on approximately 770 compliance orders of which 570 were due at 210 homes that year. It found that 78 homes had failed to comply with 142 (or 25%) of the 570 compliance orders. Of these 142 orders, 31 (or 22%) of them related to one of the Ministry's key risk areas. One home failed to comply with 18 orders the Ministry has issued over the past two years.

In our discussions with long-term-care home administrators, they identified the main reasons for failing to achieve compliance: insufficient

Figure 14: Top Ten Areas of Re-issued Orders,[1] 2013 and 2014

Source of data: Ministry of Health and Long-Term Care

Areas of Non-compliance	2013	2014
1	Complying with residents' plans of care[2]	Proper use of bed rails
2	Policies, procedures and records	Complying with residents' plans of care[2]
3	Ensuring residents have a plan of care[2]	Policies, procedures and records
4	Reassessing residents and revising plan of care[2]	Respecting Residents' Bill of Rights[3]
5	Duty to protect residents from abuse and neglect	Communication and response systems
6	Cleanliness and repair of homes	Duty to protect residents from abuse and neglect
7	Proper use of bed rails	24-hour nursing care
8	24-hour nursing care	Ensuring residents have a plan of care[2]
9	Doors in home (locking, closing, etc.)	Cleanliness and repair of homes
10	Dining and snack service	Doors in home (locking, closing, etc.)

1. If an inspector determines during the course of a follow-up inspection that a home has not complied with an order, that compliance order is closed and a new order is issued. Re-issued orders show continued non-compliance.
2. Plan of care—A plan setting out clear directions to staff covering how a resident's care, including medical, nursing, personal support, dietary, etc., should be delivered.
3. Resident's Bill of Rights—The Act lists 27 rights that residents are entitled to, such as the right to be treated with courtesy and respect, the right to be protected from abuse and the right not to be neglected.

staffing and training. Over 50% of the home administrators we surveyed believed that staffing levels are generally not sufficient to meet residents' needs and comply with Ministry requirements. In Ontario, the legislation does not require a minimum front-line-staff-to-resident ratio at long-term-care homes. The Ministry informed us that, in 2014, the number of direct care hours per resident per day was 3.4, less than the four hours recommended by the Ontario Association of Non-Profit Homes and Services for Seniors in its recent 2015 submission to the government.

Other home administrators expressed concerns that the provincial funding of $7.87 per resident per day (three meals plus two snacks) is not sufficient to meet residents' nutritional needs. The Ontario Association for Not-Profit Homes and Services for Seniors' has reported that, over the last five years, Ontario food inflation has increased by 11.5% whereas the cumulative increase in food funding for long-term-care homes has grown by less than 7%, or 50 cents per resident per day.

4.6.2 The Ministry Is Not Doing Enough to Address Repeated Non-Compliance

Although the Ministry has a process for tracking homes' compliance with orders, it has not adequately addressed systemic issues and determined where further improvement is needed. For example, we noted that homes in one region failed to comply with almost 40% of their compliance orders due in 2014, while homes in another region failed to comply with only about 17% of their orders. The Ministry did not know the reasons for this variation. We also found that 78 homes failed to comply with at least one order in 2014, and 24 of these had failed to comply with orders in key risk areas. But the Ministry had no plans in place to address this repeated non-compliance.

In addition, the Ministry was taking too long to escalate cases of recurrent non-compliant homes to the Program Director for further action, such as having an in-depth discussion with the home to deal with long-standing problems, or issuing a director's order. For example, from 2011 to 2014, the Ministry referred six homes to the Director, but only did so after at least a year of multiple, re-issued compliance orders. Despite the fact that the Program Director was involved in these cases, we noted the recurrence of similar issues during the comprehensive inspections at three out of four homes in the first six months of 2015.

The Ministry seldom uses the stronger enforcement actions that it has at its disposal, such as ordering funding to be returned or withheld, ordering a home's management to be replaced, or revoking a home's licence. Since 2010, the Ministry has revoked the licence of only one long-term-care home, and has taken action to recover monies related to that home's closure after the home failed to correct serious fire and safety concerns. We noted that other jurisdictions have additional enforcement options available to inspectors. For example, inspectors for nursing homes in Alberta, British Columbia, United States and United Kingdom can fine the homes in cases of serious non-compliance.

Almost all of the homes we contacted, including the ones that we surveyed, advised us that they would benefit from an advisor or being able to access an advisory function within the Ministry for clarification and guidance on the Act and order issues. However, the Ministry has concerns with providing this advisory function because it believes that there would be an inherent conflict of interest if inspectors had to verify whether their own advice was followed. The Ministry's position is that its role is only to determine whether homes are in compliance with the Act; how compliance is achieved is ultimately the homes' responsibility.

RECOMMENDATION 6

To ensure that long-term-care homes are not repeatedly in non-compliance with the *Long-Term Care Homes Act, 2007*, the Ministry of Health and Long-Term Care should:

- strengthen its enforcement processes to promptly address homes with repeated non-compliance issues including when to escalate homes for further actions and the evaluation of the use of other enforcement measures (e.g., fines penalty); and
- help homes achieve compliance with the Act by providing additional information and support on how to rectify issues, and by sharing best practices between long-term-care homes.

MINISTRY RESPONSE

The Ministry supports this recommendation and is currently reviewing options to strengthen the existing enforcement framework and the feasibility of adding additional enforcement tools. One of these options is to develop and implement a comprehensive enforcement policy and procedure, which will include responses to repeated non-compliance in order to support a consistency in practice by inspectors across the province.

The Act outlines the powers of inspectors. Inspectors are not LTC home advisors and therefore not in a position to help homes achieve compliance with the Act. However, the inspection/order report frequently forms the basis of the licensee's quality management plan to rectify any issues.

Ministry management meet regularly with LTC homes' associations and related groups to identify LTC homes' trends and issues emerging through inspections so that the external stakeholders can consider strategies, identify available resources (e.g., Registered Nurses' Association of Ontario's best practices, communities of practice) and provide assistance to the LTC homes.

In addition, the Ministry will explore a partnership with Health Quality Ontario and other key stakeholders to identify options for additional supports to LTC homes.

4.6.3 The Local Health Integration Networks Do Not Use the Inspection Results in Monitoring the Performance at Long-term-care Homes

While inspection results on homes with long-standing problems were provided to Local Health Integration Networks (LHINs), such results were not used by LHINs to monitor the performance of homes through their service accountability agreements. Instead, LHINs rely on the Program Director to take actions whenever the Director considers it necessary to do so. Our audit report on the Local Health Integration Networks (refer to **Chapter 3, Section 3.08**) provides further details of the issues we identified.

RECOMMENDATION 7

To ensure the long-term-care homes are held accountable to their performance, the Ministry of Health and Long-Term Care should review the role and responsibility of the Local Health Integration Networks with regards to the use of inspection results in monitoring the performance of long-term-care homes.

MINISTRY RESPONSE

The Ministry agrees with this recommendation. Regional offices' managers currently work with their respective Local Health Integration Network (LHIN) partners on a regular basis.

The Long-Term Care Home Service Accountability Agreement Indicator Working Group, in partnership with the Ministry, has recommended that a mechanism be put in place between the Ministry and the LHINs to formally communicate and jointly manage performance and accountability for the LTC home sector.

Over the past few years representatives from the LHINs and the Ministry have been working on a framework for a cross-reporting process which would allow the LHINs and the Ministry to share LTC home information with respect to risks, performance, accountability and compliance.

The Ministry, working with their LHIN partners, is expected to implement this formalized cross-reporting process by April 2016.

4.7 Situations Placing Residents at Risk Are Not Followed Up in a Timely Manner or Not Followed Up At All

The Ministry has no formal policy on when follow-up inspections must be conducted, although it has an informal target of 30 days after the orders' due date. However, as of March 2015, the Ministry had failed to follow up on about 250 (or 30%) of the compliance orders due in 2014 and 20 (or 4%) of the orders due since 2013. Furthermore, two-thirds, or 380, of the compliance orders due in 2014 were not followed up within 30 days of their due dates. In the same year, the Ministry took an average of two and a half months after the order due date (an improvement over the four months it took in 2013) to perform a follow-up inspection. We found some cases of compliance orders that had been outstanding for more than a year past their due date with no follow-up inspection; approximately 85 compliance orders were not followed up more than six months past their due date.

There is a great variance in how regional offices prioritize their follow-up inspections. Not all regions have reliable processes in place to track and monitor order due dates so inspectors are not always aware that compliance orders are overdue. Some regions prioritize follow-up inspections according to risk level, while others base them chronologically on inspection due dates. This means that the highest-risk areas are not always followed up with inspections as promptly as they should be. For example, in 2014, we found the orders relating to high-risk areas such as abuse, neglect, home safety, security, cleanliness, repair, plans of care, and Residents' Bill of Rights took, on average, 89 days to be followed up, while lower-risk orders took 74 days, on average.

We identified a number of cases where the Ministry's failure to follow up on compliance orders on a timely basis increased the risk to residents by leaving them in situations of potential harm:

- In one case, a resident allegedly sexually harassed another resident with a cognitive impairment from November to December 2013, and harassed yet another resident in November 2013. The Ministry completed an inspection and subsequently issued the home with a compliance order in January 2014, asking the home to comply within two weeks to ensure that residents were protected. The Ministry did not follow up on the order until September 2014, almost eight months after the due date. The inspector found that the home had not implemented interventions to minimize the risk of altercations between residents and noted two additional cases of resident-to-resident abuse. The Ministry re-issued the same compliance order in February 2015.
- In a second case, there were multiple allegations of a staff member verbally and physically abusing residents in March 2014. The Ministry issued a compliance order in May 2014 and asked the home to comply within a week to ensure the protection of residents. The Ministry waited until October 2014, almost five months later, to follow up, and found the home had still failed to protect residents from abuse and neglect by all staff. During this inspection, inspectors found two more cases where residents were treated roughly by another staff member in the same home.
- In a third case from August 2013, a resident fell overnight and was injured, but staff did not notice until the next morning. As a result of the injuries, the resident was transferred to hospital and passed away the next day. The Ministry issued a compliance order requiring the home to implement a new policy for observing residents during overnight shifts in November 2013, with a due date of the end of the month. The Ministry did not follow up to ensure the home was in compliance (which it was) until September 2014, over ten months after the order due date.

RECOMMENDATION 8

To better ensure that residents at long-term-care homes are protected from harm, the Ministry of Health and Long-Term Care should:

- establish a formal target for conducting follow-up inspections on orders, and prioritize those inspections based on risk; and
- regularly track and monitor follow-up inspections to ensure they are conducted within the targeted time frame.

MINISTRY RESPONSE

The Ministry accepts this recommendation and is making improvements to the Inspectors' Quality Solution (IQS) inspection application to enable inspectors to flag high-risk orders at the time of issuance that will allow the Ministry to more easily track these orders going forward. The improvements are targeted for implementation in 2016. Additionally, the Ministry will conduct a policy review to ensure formal targets for conducting follow-up inspections on orders are established.

With the assistance of increased tracking and reporting capability in the IQS, the Ministry will undertake regular reviews of the timeliness of follow-up inspections in relation to targets established, including flagging any overdue follow-up inspections. This information will be incorporated in the Ministry's on-going Quality Management program.

4.8 Inspection Results Are Not Reported in a Timely Manner or Not Reported at All

We found significant delays in reporting inspection results to both long-term-care homes and the public, with some inspection results—dating back as far as 2011—not yet made public at the time of our audit.

After an inspection is conducted, it is important to promptly report any non-compliance issues to the home's operator to ensure that appropriate corrective action is taken as soon as possible. Delays could result in homes continuing to do, or not do, something that impacts the quality of care being provided to their residents. Delays may also communicate a lack of public accountability and transparency of the Program.

The Ministry has an informal target to deliver the inspection report to the operator of the home within two weeks from the end of the inspection, and to publish an edited version (without residents' personal and health information) of the report on its website within two months. However, we found that the Ministry does not monitor its reporting timelines to confirm whether it is meeting its informal targets.

4.8.1 Communication of Inspection Results to Long-term-care Home Operators Is Not Always Timely

We found that the Ministry took, on average, 25 days to complete inspection reports for home operators following comprehensive inspections in 2014, well in excess of its informal two-week target. Again, we found significant variations among different regions, ranging from an average of 13 days in one region to 62 days in another. About 4% of the reports in our sample took longer than 100 days to be completed.

The Ministry informed us that comprehensive inspection reports generally take longer to complete than reports for other inspections because their coverage is broad, the inspections take longer, and multiple inspectors are involved. We found that complaint, critical incident, and follow-up inspection reports were generally completed about two weeks after the end of inspection.

4.8.2 Communication of Inspection Results to the Public Is Not Timely

The Ministry took, on average, 80 days to publish the results of comprehensive inspections on its website in 2014, significantly longer than its 60-day target. Again we found variations among regions, ranging from an average of 70 days in one region to up to 100 days in another, in their publishing of results.

Results of complaint, critical incident, and follow-up inspections took even longer to be published: 90 days, on average (ranging from 83 days in one region to 116 days in another). Some reports were not published for more than a year following the end of the inspection. The Ministry informed us that the main reason for delays was administrative because reports were not uploaded to the website immediately but only on a bi-monthly basis.

We found that reports for about 8% of the inspections in our sample were not available on the Ministry website, and some dated as far back as 2011. The Ministry confirmed that a total of 905 inspection reports had not been uploaded to its website—representing about 10% of all the inspections that took place from April 2011 to December 2014. The Ministry cited administrative errors again as explanation for the missing reports, such as electronic files that failed to transfer or that had been misplaced.

RECOMMENDATION 9

To ensure that inspection results are communicated on a timely basis, the Ministry of Health and Long-Term Care should:

- establish formal targets for reporting inspection results to both home licensees and the public;
- monitor and review actual reporting timelines against pre-established targets, and take corrective action when such targets are not met; and
- implement procedures to ensure that all inspection reports are posted on its public website.

MINISTRY RESPONSE

The Ministry agrees with this recommendation and has established benchmarks for completion of inspection reports after on-site inspections are conducted, and for reporting inspection results to the LTC home licensees and the public. The reporting benchmarks are one of the key quality management performance indicators, and actual reporting timelines will be evaluated against the benchmarks.

As of April 2015, the Ministry has introduced business processes for ensuring that reports are posted in a timely manner. The "Inspection Report Processing Administrative Operational Manual: Licensee and Public Inspection Reports & Order(s) of the Inspector" details procedures for the uploading of public inspection reports and order(s) of the inspector to the public website. This manual includes protocols for quality checks by inspection team leads (or designates) prior to uploading the reports. Business procedures are in place to identify where reports have not successfully been uploaded to the public reporting website.

4.9 Inspection Reports Need to Provide More Useful Information on Long-term-care Homes

Inspection results can provide information that is useful to both stakeholders and the public at large. The Ministry currently reports the results of each inspection performed at a specific point in time. While it is useful to know what issues were found at a home during an inspection, it would be more useful if the Ministry also reported and summarized whether instances of non-compliance were later rectified, or how a home was performing compared to other homes in the province.

4.9.1 Reports Are Not Easy to Understand

Stakeholders told us that they found inspection reports unclear and that it was difficult to determine from them how a home was performing. In our survey of family council representatives, about 60% of respondents indicated that inspection reports provided helpful information to current residents and their family members in understanding and assessing the quality of care at a home, while 20% of respondents disagreed and 10% did not know. Some respondents indicated that inspection reports were "very confusing and difficult to understand" and "need to be written…so the average person can comprehend them."

Ministry inspection reports include detailed descriptions of inspectors' activities and lengthy excerpts from sections of the Act. In comparison, the licensing inspection program for child-care centres in Ontario provides easy-to-understand inspection results in a summarized format. The program's website clearly indicates whether any issues noted were resolved before the licence was re-issued, whether specific licensing requirements were complied with, and whether the overall compliance level was achieved.

4.9.2 Public Reporting Does Not Provide Complete Quality-of-Care Information on Long-term-care Homes

The Program's current style of public reporting does not provide a complete picture of the quality of care that a long-term-care home provides to its residents compared to other homes or against the provincial average. Arguably, this is the information that prospective and current residents, their families, and members of the public are very interested in knowing.

There are other organizations that report on various quality-of-care measures at long-term-care homes in Ontario. But, so far, no attempt has been made to consolidate this information with the Ministry's inspection results in order to provide the public with useful, comprehensive information on the quality of each home as a whole. For example:

- Health Quality Ontario reports on a number of quality indicators for individual long-term-care homes, such as wait times, the percentage of residents with worsening bladder control, the percentage who had a recent fall, and the percentage who were physically restrained. In May 2015, it also reported on the use of antipsychotic drugs in long-term-care homes in response to a controversy surrounding the side effects of these drugs in treating behavioural symptoms of dementia. Health Quality Ontario reported a wide variation in the proportion of long-term-care home residents being given these drugs in 2013, from no residents in some homes to more than 60% in others; the provincial average it reported slightly decreased, from 32% in 2010 to 29% in 2013.
- The Canadian Institute for Health Information published a report in June 2015 (covering the 2013/14 fiscal year) that ranked long-term-care homes using various criteria, such as the percentage of residents put in daily restraints (an average of 9%, ranging from 3% in one LHIN area to 14% in another), the percentage who were experiencing pain (an average of 8%, ranging from 4% to 18%), and the percentage with a worsening depressive mood (an average of 26%, ranging from 19% to 30%) or worsening physical function (an average of 36%, ranging from 29% to 41%).
- Community Care Access Centres publish monthly wait times for each long-term-care home in the province, including the number of people on the wait list for each type of bed (basic, semi-private or private).

Ontario could look to other jurisdictions that use reporting indicators to help the public determine how well a particular home is performing relative to others. In the United Kingdom, for example, inspection results are summarized into ratings for each home, from inadequate to outstanding in five general categories: treating people with respect; providing care that meets people's needs; safety; staffing; and quality of management. The categories are designed to focus on the areas that most matter to people. In the United States, the federal government uses a five-star rating system that combines its health inspection reporting on nursing homes with staffing ratios and quality measures that are similar to the indicators Health Quality Ontario uses, such as the percentage of residents who have had falls and the percentage who were physically restrained. The rating system allows people to compare information about nursing homes across the country.

RECOMMENDATION 10

To provide the public with better information for decision-making on long-term-care homes, the Ministry of Health and Long-Term Care should:

- summarize and report the number of instances identified of non-compliance, for individual homes and on a provincial basis, and when they were rectified;
- consolidate its inspection results together with quality-of-care information from other entities, such as Health Quality Ontario and the Community Care Access Centres, in order to provide a broader perspective on each home's performance, including the use of antipsychotic drugs, wait lists, staffing ratios and other quality-of-care indicators; and
- consult with other stakeholders and consider best practices from other jurisdictions to develop a reporting strategy that allows the public to compare and rank homes' level of compliance and other quality-of-care indicators against the provincial average.

MINISTRY RESPONSE

The Ministry supports this recommendation and currently publishes all inspection reports and orders on its public website, sorted according to homes. The Ministry is currently finalizing the implementation of an upgrade to the website to allow the public to view compliance information per home as compared to provincial averages.

The Ministry is examining further improvements to the public website which will facilitate more comparability between LTC homes, based on available ministry information. This would allow the general public to compare LTC homes against provincial level averages on key indicators.

4.10 Allocation of Inspectors Needs Further Analysis

4.10.1 Inspectors Are Not Allocated According To Regional Needs

The Ministry has not collected the necessary information on a regular basis to assess whether its current allocation of inspectors is appropriate. It also has not done any analysis to substantiate that allocations are based on either workload or efficiency of inspectors across the province. Ineffective allocation of inspectors' workload could lead to inconsistent timelines in addressing residents' concerns.

Figure 15 shows that the number of inspector positions allocated by the Ministry does not correspond to the workload in some regions. For example, in 2014, the London region had the most homes requiring comprehensive inspections, close to 35% more complaints and critical incidents, and approximately 65% more compliance orders requiring inspections than the Ottawa region. Yet, both regions were allocated around the same number of inspectors. Similarly, the Toronto region was allocated a similar number of inspectors as the London region even though the number of complaint and critical incidents requiring inspection in the Toronto region was about 20% less than the London region.

4.10.2 Inspectors' Workloads Vary Across the Province

The Ministry does not use the information it has available to determine whether individual inspector's workloads are appropriate and whether inspections are being conducted efficiently from region to region. For example, it does not track and monitor how many inspections an inspector has done or how long it takes each inspector to perform an inspection.

After we showed the Ministry our analysis on inspector allocations and workload (shown in **Figure 15**), the Ministry did its own calculations and found similar differences in inspector workloads between regions. It also found regional variations depending on the type of inspection, which are shown in **Figure 16**. For example, each inspector conducted about 12 comprehensive inspections, on average, but this ranged from seven inspections in one region to 15 in another. Similarly, each inspector also conducted, on average, 16 complaint, critical-incident and follow-up inspections, but these ranged from nine per inspector in one region to 26 in another.

Figure 15: Key Workload Indicators and Number of Inspectors Allocated to Each Region, 2014

Source of data: Ministry of Health and Long-Term Care

Key Workload Indicators	Sudbury Region	Hamilton Region	London Region	Ottawa Region	Toronto Region	Average (Total)
# of Long-term-care Homes	70	125	150	145	140	**126 (630)**
# of Complaints And Critical Incidents Requiring Inspections	280	1,140	1,570	1,170	1,280	**1,088 (5,440)**
# of Compliance Orders Past Due Without a Follow-up Inspection	50	135	25	15	25	**50 (250)**
# of Inspectors Allocated*	**24**	**35**	**36**	**37**	**37**	**34 (169)**

* Includes the number of inspector positions approved by the Ministry not yet filled.

Figure 16: Average Number of Inspections Per Inspector,* by Region, 2014

Source of data: Ministry of Health and Long-Term Care

Type of Inspection	Sudbury Region	Hamilton Region	London Region	Ottawa Region	Toronto Region	Weighted Average*
Comprehensive (A)	7	14	12	15	9	**12**
Complaint, Critical-incident and Follow-up (B)	9	11	26	15	11	**16**
All Inspections (A+B)	**16**	**25**	**38**	**30**	**20**	**28**

* Based on weighted average, which incorporates the fluctuation of the number of inspectors throughout the year.

The average time inspectors took to complete an inspection also varied between regions. The comprehensive inspections in our sample took, on average, seven days to complete in one region and more than 10 days in another. And one region took, on average, just one day to complete complaint, critical-incident and follow-up inspections while another region took three days.

Although each type of inspection and each inspector's level of experience are different, collecting this information would help the Ministry establish a target for workload and efficiency. The Ministry has not done any further analysis to determine the reasons for the variations identified, but it informed us that it might be due to difficulties in recruiting and retaining new inspectors from region to region. For example, from June 2013 to March 2014, the Ministry hired 86 new inspectors, but eight of those resigned within the same year and another ten resigned the following year. An additional 29 inspectors were hired from April 2014 to March 2015.

RECOMMENDATION 11

To ensure residents' concerns are addressed equitably across the province, the Ministry of Health and Long-Term Care should periodically review and assess inspectors' workload and efficiency among the regions, and take necessary actions to address any unexpected variations.

MINISTRY RESPONSE

The Ministry supports this recommendation and will conduct an analysis of the current organizational structure for the Program. This will include an analysis of staff and management complements and workload, intake functions, administrative functions, specialized resources and operating budgets, as well as strengths, opportunities and risks of the current program structure.

4.11 The Ministry Does Not Effectively Ensure the Quality of Inspectors' Work

4.11.1 Inspection Reports Need More Review

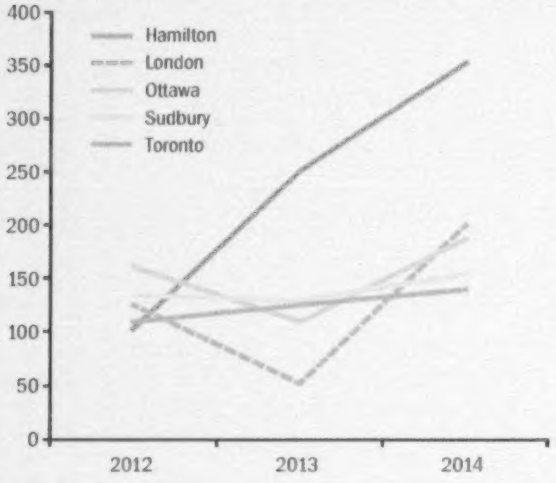
Although the Ministry has policies in place for regional managers and/or inspector team leads to review and approve inspection reports before they are finalized, it does not track whether these reviews are actually done. Regional managers informed us that they did not review every report. For example, regional managers did not review reports that had been completed by more experienced inspectors with findings of only minor instances of non-compliance and where no orders were issued. But, given that almost 90% (8,500 of 9,500 as shown in **Figure 4**) of the instances of non-compliance identified are considered "minor," the Ministry cannot confirm if these non-compliances—such as infection prevention and control, and skin and wound care—are indeed minor if it is reviewing reports that only deal with instances of serious non-compliance. Also, the Ministry cannot be assured that sufficient and appropriate work was performed in those inspections.

4.11.2 The Ministry Cannot Explain the Regional Variances in the Number of Compliance Orders Issued

Figure 17 shows the significant variation in number of compliance orders issued by region over a three-year period. In 2014, inspectors in the Hamilton region issued, on average, nine compliance orders for every 10 inspections conducted, whereas the London region issued, on average, two compliance orders for every 10 inspections conducted. From 2012 to 2014, the number of compliance orders issued had increased in all regions primarily due to an increase in comprehensive inspections conducted in 2014. Despite performing a similar number of comprehensive inspections in 2014, the Hamilton region issued at least 75% more compliance orders than any other region. The Ministry did not know if this was because homes in the region were less compliant or because inspectors in the region were more willing to issue orders. However, we noted that, based on the 2013/14 information reported by the Canadian Institute for Health Information, the homes in the Hamilton region scored relatively close to the provincial averages for the nine quality-of-care indicators. In comparison, the homes in the London region scored worse in eight out of nine quality-of-care indicators than the provincial average.

Figure 17: Number of Compliance Orders Issued, by Region, 2012–2014*

Source of data: Ministry of Health and Long-Term Care



* Based on calendar year. Data prior to 2012 is either incomplete or not available.

Several stakeholders informed us that inspection results are not consistent from one region to another or even from one home to another within the same region. This opinion was echoed by almost 60% of the home administrators we surveyed.

Between 2010 and 2014, 29 long-term-care homes requested the Program Director, through the appeal process, to review 52 compliance orders that had been issued by inspectors. In about 20% of these cases, the Director rescinded the orders. Furthermore, we reviewed a sample of the orders altered by the Director and found that the revision was made due to insufficient evidence gathered by the inspectors for 40% of these orders.

4.11.3 Quality Assurance Procedures Have Been Put On Hold Since 2013

The Ministry developed quality assurance procedures in January 2013, including peer reviews and post-inspection audit checklists, to determine whether policies and procedures had been followed during inspections and to identify training needs. However, these measures were not implemented as the Ministry was focused on meeting the Minister's commitment to complete comprehensive inspections of every long-term-care home in the province by the end of 2014.

RECOMMENDATION 12

To ensure the high quality and consistency of inspectors' work across the province, the Ministry of Health and Long-Term Care should:

- revisit the quality assurance procedures, including peer reviews and the use of post-inspection audit checklists, that were put on hold and evaluate their relevance and usefulness;
- perform management reviews of inspectors' work on a regular basis and document the results; and
- consolidate and evaluate results from quality reviews and use them for training purposes.

MINISTRY RESPONSE

The Ministry accepts this recommendation and will review the Terms of Reference of both the Governance Committee and the Quality Improvement Advisory Committee.

A complete transitioning of the current management structure to the committee structure is targeted for the fall of 2015.

The Ministry will evaluate this recommendation as part of the organizational review of the Program.

4.12 The Ministry is Not Measuring Program Performance

Collecting, reviewing and reporting performance indicators are crucial to determining a Program's efficiency and effectiveness. Doing so may help identify areas for improvement, and encourage accountability and transparency. A recurring theme in this audit has been that the Ministry has no clearly defined and expected outcomes or established targets against which it can assess how the Long-Term Care Homes Quality Inspection Program is performing. For example, as mentioned earlier, the Ministry has an informal target to follow up on orders within 30 days of the order due date, but it does not monitor the number of orders that comply with that goal. Without tracking this type of information, the Ministry has no way of establishing benchmarks to assess the Program's performance, such as an appropriate time frame to follow up on orders issued.

Furthermore, without established benchmarks, the Ministry has no way of assessing whether regional variations in areas, such as timelines for completing inspections, following up on compliance orders and publicly reporting inspection results, indicate that some are operating more or less efficiently than others, or if something else is causing the differences.

The Ministry developed a performance measurement framework in 2008 and attempted to establish the Continuous Quality Improvement Advisory Committee in June 2013. However, the Ministry is still in the process of implementing the framework and put the establishment of the committee on hold while it focused on meeting the Minister's commitment to complete comprehensive inspections of all long-term-care homes by the end of 2014. Currently, the Ministry lacks the key information it needs to ensure that the Program is achieving its mandate, meeting its targets and improving the quality of care for residents in long-term-care homes. The Ministry currently reports publicly on only one performance measure: the number of comprehensive inspections completed throughout the year. The number of complaints or critical incidents that are inspected within the expected time frame is not publicly reported.

When we completed our audit work, the Ministry was still in the process of determining what information can and should be collected to monitor and track performance. The Ministry was also determining what targets should be established in areas such as inspector workload and the timeliness of inspections, inspection reports and follow-ups on compliance orders.

RECOMMENDATION 13

To ensure the mandate of the Long-Term Care Homes Quality Inspection Program is met and its performance is transparent to the public, the Ministry of Health and Long-Term Care should:

- identify key performance indicators and establish reasonable targets for each and to periodically review all targets to ensure they are appropriate;
- monitor and evaluate actual results against all targets established and take corrective action when any targets are not met; and
- regularly publish actual results against targets.

MINISTRY RESPONSE

The Ministry accepts this recommendation. Enabled by the IQS (Inspectors' Quality Solution) inspection application, a wide variety of performance tracking measures and reports are in place in areas such as: complaints and critical incidents received and inspected; annual comprehensive inspections; and follow-up inspections.

Reporting on inspection outcomes of the "top ten" non-compliant homes has been in place since early 2011. After the completion of comprehensive inspections in all LTC homes in 2014, the findings were shared with the sector.

Key Performance Indicators are currently being finalized as part of the further expansion, refinement of program monitoring and quality management, with a completion target of fall 2015. The Ministry is finalizing these key performance indicators to also enable the creation of a Balanced Score Card with respect to inspection outcomes.

The Ministry has implemented performance measures for the Program which have been in place since 2010. These measures include the number of complaints and critical incidents received and requiring inspections, the number of inspections completed by type and by year, and the analysis of the top 10 non-compliances and orders issued.

The Ministry now also has the ability to establish benchmarks for internal performance including:

- Timeliness of follow-up inspections for orders issued, and
- Timeliness of inspection for high-risk issues.

The Ministry is currently working on identifying and reporting the data elements that will be valuable for reporting on and analysing the inspection program, its outputs, and identifying areas for improvement and enhancement. Implementation is targeted for spring 2016. An analysis of the indicators will be conducted to determine what information is helpful to stakeholders. As mentioned above, many of the indicators are already being shared with stakeholders through the publishing of inspection reports and the sharing of comprehensive inspection and other inspection-type analytics.

Appendix 1—Performance of Long-term-care Homes as Measured by the Canadian Institute for Health Information's Nine Quality Indicators

Source of data: Canadian Institute for Health Information

	Performance by Region,[1] 2013/14[2] (% of Residents)					Provincial Average, 2013/14 (%)	% Change Between 2010/11 and 2013/14
	Hamilton	**London**	**Ottawa**	**Sudbury**	**Toronto**		
Indicators For Which Provincial Performance Improved Between 2010/11 and 2013/14							
Restraint use[3]	9.2	10.7	12.0	11.7	5.2	8.9	-45
Potentially inappropriate use of antipsychotics[4]	30.3	31.4	30.3	29.1	31.2	30.6	-34
Experiencing pain[5]	7.4	8.7	8.9	12.5	5.7	7.9	-13
Experiencing worsened pain[6]	11.3	12.6	11.2	13.4	9.7	11.2	-6
Indicators For Which Provincial Performance Worsened Between 2010/11 and 2013/14							
Worsened pressure ulcer[7]	3.1	3.5	2.9	3.1	2.7	3.0	+7
Improved physical functioning[8]	29.7	34.0	31.5	32.2	28.6	31.1	-6
Worsened physical functioning[9]	35.7	37.6	35.5	34.9	35.4	35.8	+5
Falls in last 30 days[10]	14.1	15.1	14.3	14.8	13.3	14.2	+2
Worsened depressive mood[11]	26.3	27.7	27.7	28.5	21.9	25.9	+2

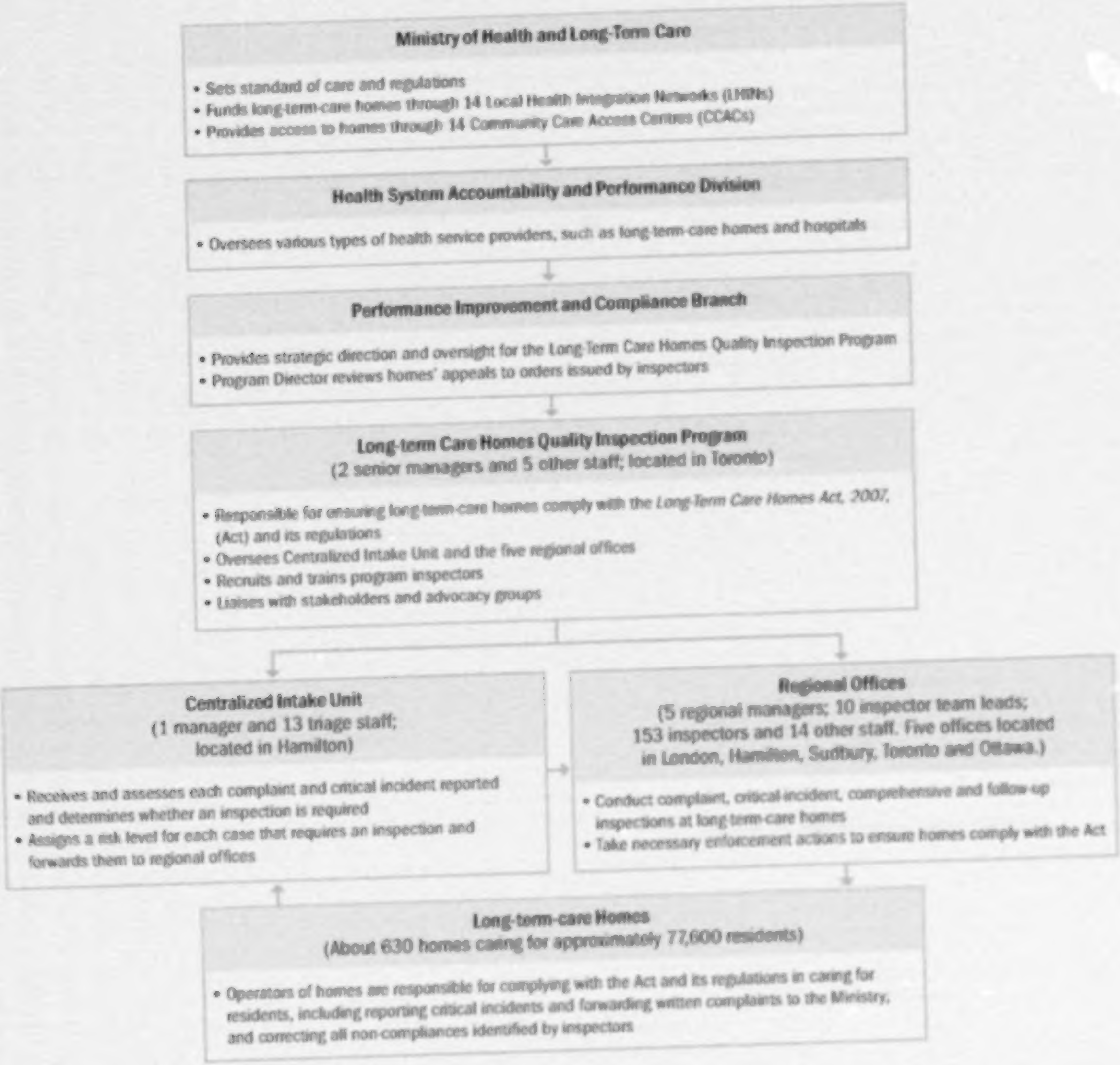
Boxes shaded in dark grey indicate the region with the worst performance for the indicator.

Boxes shaded in light grey indicate the region with the best performance for the indicator.

1. Long-term-care homes reported their results to the Canadian Institute for Health Information, which in turn published the results by 14 Local Health Integration Networks (LHINs). We mapped the data for the 14 LHINs to the Ministry's five regions, weighting the data according to the number of long-term-care beds in each LHIN as a proportion of the total number of long-term-care beds in each region.
2. 2013/14 is the latest year for which data is available publicly for individual long-term-care home performance on the nine quality indicators.
3. This indicator looks at how many long-term-care residents are in daily physical restraints. Restraints are sometimes used to manage behaviours or to prevent falls. There are many potential physical and psychological risks associated with applying physical restraints to older adults, and such use raises concerns about safety and quality of care.
4. This indicator looks at how many long-term-care residents are taking antipsychotic drugs without a diagnosis of psychosis. These drugs are sometimes used to manage behaviours in residents who have dementia. Careful monitoring is required, as such use raises concerns about safety and quality of care.
5. This indicator looks at how many long-term-care residents had moderate daily pain, or horrible or excruciating pain at any frequency. The consequences of pain include increased difficulty with activities of daily living, depression and lower quality of life. The prevalence of persistent pain increases with age, and proper treatment of pain is necessary to improve the health status of residents.
6. This indicator looks at how many long-term-care residents had worsened pain. Worsening pain can be related to a number of issues, including medication complications and/or improper management of medication. Careful monitoring of changes in pain can help identify appropriate treatment. Worsened pain raises concerns about the resident's health status and the quality of care received.
7. This indicator looks at the number of long-term-care residents whose stage two to four pressure ulcer had worsened since the previous assessment. Pressure ulcers can happen when a resident sits or lies in the same position for a long period of time. Immobility may be due to many physical and psychological factors, neurological diseases like Alzheimer's and improper nutrition or hydration. Careful monitoring is required to ensure good quality of care.
8. This indicator looks at how many long-term-care residents improved or remained independent in transferring on and off surfaces (such as beds, chairs and toilets), moving around in bed and walking around the home. Being independent or showing an improvement in these activities of daily living may indicate an improvement in overall health status and provide a sense of autonomy for the resident.
9. This indicator looks at how many long-term-care residents worsened or remained completely dependent in transferring on and off surfaces (such as beds, chairs and toilets), moving around in bed and walking around the home. An increased level of dependence on others to assist with transferring and locomotion may indicate deterioration in the overall health status of a resident.
10. This indicator looks at how many long-term-care residents fell in the 30 days leading up to the date of their quarterly clinical assessment. Falls are the leading cause of injury for seniors and contribute to a significant burden on the health care system. Residents are at a higher risk of falling if they have a history of falls or are taking certain medications. Preventing falls increases the safety and quality of care of residents.
11. This indicator looks at the number of long-term-care residents whose mood from symptoms of depression worsened. Depression affects quality of life and may also contribute to deterioration in activities of daily living and an increased sensitivity to pain.

Appendix 2—Key Roles, Responsibilities and Accountability Relationships in Long-term-care Home Oversight

Prepared by the Office of the Auditor General of Ontario



Ministry of Health and Long-Term Care

- Sets standard of care and regulations
- Funds long-term-care homes through 14 Local Health Integration Networks (LHINs)
- Provides access to homes through 14 Community Care Access Centres (CCACs)

Health System Accountability and Performance Division

- Oversees various types of health service providers, such as long-term-care homes and hospitals

Performance Improvement and Compliance Branch

- Provides strategic direction and oversight for the Long-Term Care Homes Quality Inspection Program
- Program Director reviews homes' appeals to orders issued by inspectors

Long-term Care Homes Quality Inspection Program
(2 senior managers and 5 other staff; located in Toronto)

- Responsible for ensuring long-term-care homes comply with the *Long-Term Care Homes Act, 2007*, (Act) and its regulations
- Oversees Centralized Intake Unit and the five regional offices
- Recruits and trains program inspectors
- Liaises with stakeholders and advocacy groups

Centralized Intake Unit
(1 manager and 13 triage staff;
located in Hamilton)

- Receives and assesses each complaint and critical incident reported and determines whether an inspection is required
- Assigns a risk level for each case that requires an inspection and forwards them to regional offices

Regional Offices
(5 regional managers; 10 inspector team leads;
153 inspectors and 14 other staff. Five offices located
in London, Hamilton, Sudbury, Toronto and Ottawa.)

- Conduct complaint, critical-incident, comprehensive and follow-up inspections at long-term-care homes
- Take necessary enforcement actions to ensure homes comply with the Act

Long-term-care Homes
(About 630 homes caring for approximately 77,600 residents)

- Operators of homes are responsible for complying with the Act and its regulations in caring for residents, including reporting critical incidents and forwarding written complaints to the Ministry, and correcting all non-compliances identified by inspectors

Appendix 3—Comprehensive Inspection Process and Inspection Protocols

Source of data: Ministry of Health and Long-Term Care

Stage One

Inspectors randomly select a sample of 40 residents. They interview the residents, observe them, and review their health records. After this, inspectors interview the home staff responsible for overseeing the care of the residents in the sample. They also interview family members of several of the residents in the sample.

Stage Two

Inspectors use an algorithm to analyze information collected from stage one to identify areas that require more in-depth inspection. Inspectors use standardized inspection protocols to conduct in-depth inspections and summarize their findings in a report.

Mandatory Inspection Protocols

The following five protocols must be examined in stage one or two in every comprehensive inspection:

1. Medication
2. Infection prevention and control
3. Residents' council interview
4. Family council interview
5. Dining observation

Other Inspection Protocols

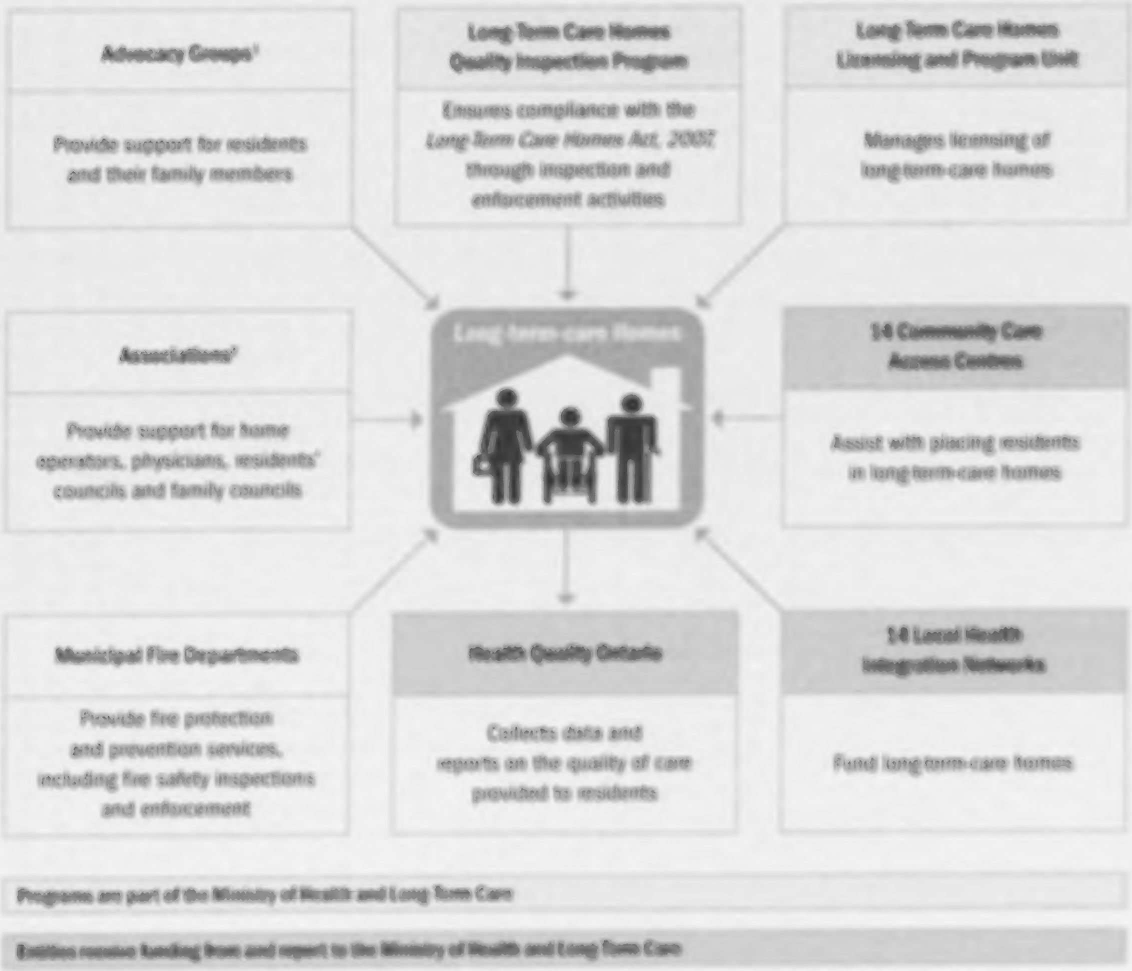
Inspectors examine at one or more of the following protocols in stage two of an inspection if it is called for (i.e., triggered by records review, their observations, and/or interviews):

Category	Inspection Protocols
Inspector-initiated	6. Admission and discharge 7. Quality improvement 8. Resident charges[1] 9. Training and orientation
Home-related	10. Accommodation services: housekeeping 11. Accommodation services: laundry 12. Accommodation services: maintenance 13. Critical incident response 14. Food quality 15. Reporting and complaints 16. Safe and secure home 17. Snack observation 18. Sufficient staffing 19. Trust accounts[2]
Resident-related	20. Prevention of abuse, neglect and retaliation 21. Recreation and social activities 22. Responsive behaviours 23. Skin and wound care 24. Continence care and bowel management 25. Dignity, choice and privacy 26. Falls prevention 27. Hospitalization and change in condition 28. Minimizing of restraining 29. Nutrition and hydration 30. Pain 31. Personal support services

1. Resident charges—Charges to residents for goods and services, such as haircuts, cable TV, phone line, received in the homes that are not covered by government funding.
2. Trust accounts—A bank account in which the home operator shall deposit all money entrusted to his/her care on behalf of a resident.

Appendix 4—Selected Key Players in the Long-term-care Home Sector

Source of data: Ministry of Health and Long-Term Care



Advocacy Groups[1]

Provide support for residents and their family members

Long-Term Care Homes Quality Inspection Program

Ensures compliance with the *Long-Term Care Homes Act, 2007,* through inspection and enforcement activities

Long-Term Care Homes Licensing and Program Unit

Manages licensing of long-term-care homes

Associations[2]

Provide support for home operators, physicians, residents' councils and family councils

Long-term-care Homes

14 Community Care Access Centres

Assist with placing residents in long-term-care homes

Municipal Fire Departments

Provide fire protection and prevention services, including fire safety inspections and enforcement

Health Quality Ontario

Collects data and reports on the quality of care provided to residents

14 Local Health Integration Networks

Fund long-term-care homes

Programs are part of the Ministry of Health and Long-Term Care

Entities receive funding from and report to the Ministry of Health and Long-Term Care

1. Advocacy groups include organizations such as the Advocacy Centre for the Elderly and Concerned Friends.
2. Associations include organizations such as the Ontario Long Term Care Association, Ontario Association of Non-profit Homes and Services For Seniors, Ontario Long Term Care Physicians, Ontario Association of Residents' Councils, and the Family Councils' Program.

Chapter 3

Section

3.10

Management of Contaminated Sites

1.0 Background

1.1 Contaminated Sites

Contamination is the presence of a chemical, organic or radioactive material or live organism in the air, soil, water or sediment. Contamination can arise from commercial or industrial activity, improper waste disposal, improper chemical storage, or chemical leaks and spills. Areas of land or water that are affected by contamination, such as hazardous waste or pollution in concentrations that pose health and safety risks, and exceed specific levels under environmental standards are referred to as contaminated sites.

Governments may have a responsibility to remediate (that is, clean up) contaminated sites in their jurisdictions. Remediation refers to action taken to remove, stop or mitigate a site's risks or adverse effects on the environment or on human health. Such actions may range from completely removing the contamination ("dig and dump" measures) to reducing its impact (risk management measures), at times by simple means such as fencing off waste areas to ensure site security. Remediation's aim is to remove or minimize the risks that the contamination will affect the environment or the public, as well as to allow for the future productive use of the site.

Once a contaminated site is identified, it is important to eliminate, contain or reduce the risk it poses to public health and safety and to the environment.

1.2 *Environmental Protection Act*

Although federal and provincial or territorial governments share legal responsibility for protecting the environment, most legislation regarding contaminated sites is issued by provincial or territorial governments. In Ontario, a number of provincial statutes deal directly or indirectly with environmental protection and contamination, with the most comprehensive being the *Environmental Protection Act*. All other provinces have similar legislation.

The *Environmental Protection Act* defines a contaminant very broadly as "any solid, liquid, gas, odour, heat, sound, vibration, radiation or combination of any of them resulting directly or indirectly from human activities that causes or may cause an adverse effect" on human health or safety or on the environment. According to environmental scientists, the risk of an adverse effect is considered higher when a pollutant linkage exists—that is, when a pollution source (contaminant), a receptor (something that could be harmed by the contaminant), and a pathway are all present. **Figure 1** defines these terms and shows how they connect.

Figure 1: Elements in a Pollutant Linkage

Source of data: Environmental Scientific Group (www.esg.co.uk)

Pollutant Linkage	Description
Source	A substance (also called a contaminant) in, on or under land that can cause harm to or pollute the surrounding environment and anything living in that environment.
Receptor	People or assets that could be adversely affected by a contaminant. Receptors can include communities, ecological systems, properties, or bodies of water.
Pathway	A route or means by which a receptor can be exposed to or affected by a contaminant.
Pollutant linkage	The simultaneous presence of a source, a receptor, and a pathway between them.

Source
Pathway
Receptor

The *Environmental Protection Act* requires that remediation must be undertaken if the contaminant causes or may cause an adverse effect on human health or safety or the environment. Remediation plans typically aim to remove either the contamination source or a receptor, or to block the pathway from the source to the receptor in a way that reduces or eliminates the risk that the contaminant will have a damaging effect. Several different approaches may be possible to remediate a particular site, and remediation costs can vary significantly depending on the strategy chosen. Although remediation can be costly, additional environmental damage may occur if such efforts are not made, and this damage may ultimately cost the province considerably more. As a result, remediation decisions that the government makes today will have a significant impact on the availability and allocation of its future resources.

1.3 Provincial Responsibility for Contaminated Sites

The Province can become responsible for a contaminated site in a number of ways. In many cases, the Province is responsible because it owns the site or directly caused the contamination of the site through its own activities. For example, some Ontario sites contain leaking fuel tanks. The Province in this case is the polluter, and accordingly must recognize a liability for the estimated costs of cleaning up the sites.

Although some of the Province's sites became contaminated due to its own operations, in many other cases the Province has assumed responsibility for sites where contamination was caused by other third parties. The Province may have had to assume responsibility because the original third party owner or operator became insolvent, ceased to exist, or had insufficient funds to remedy environmental damage that had occurred on the property. The Province may also implicitly accept responsibility for contaminated sites by taking remedial action in emergency situations.

Several government ministries and agencies share responsibility for managing the Province's contaminated sites (see **Figure 2**). These ministries and agencies are individually responsible for contaminated sites they own and for any additional sites they have accepted responsibility for, which can include:

- orphaned sites, where owners cannot be located or are unwilling or unable to remediate;
- forfeited sites, where a corporation created by Ontario statute has been dissolved;
- public housing sites, where the Province, as the former owner, has agreed to pay for remediation in accordance with an agreement with a public provider (such as a municipality); and

Figure 2: Responsibility for Managing Contaminated Sites

Prepared by the Office of the Auditor General of Ontario

Ministry	Responsibilities
Ministry of the Environment and Climate Change	Regulates environmental mitigation or remediation efforts province-wide, primarily through the *Environmental Protection Act* and the *Ontario Water Resources Act*. Responds to real or potential risks of harm to public health and safety or to the environment if a responsible party cannot be found.
Ministry of Natural Resources and Forestry	Responsible for contaminated sites on Crown land (primarily forests and wilderness), as well as a number of dams that are used to enclose mine waste.
Ministry of Northern Development and Mines	Through its Abandoned Mines Rehabilitation Program, addresses environmental and public safety issues associated with abandoned mines.
Ministry of Economic Development, Employment and Infrastructure	Buys, manages, and sells provincially owned real estate (i.e., land and buildings); also manages properties forfeited to the province. Infrastructure Ontario manages real estate on MEDEI's behalf, and this management can include mitigating and remediating contaminated sites.
Ministry of Transportation	Responsible for contaminated sites along all provincially owned highways and roads.
Ministry of Municipal Affairs and Housing	Has agreed to pay for remediation of certain former provincially owned public housing sites that are undergoing redevelopment.
Government agencies	Ontario government agencies own or manage some of the province's contaminated sites. Examples include Ontario Place Corporation, the Ontario Northland Transportation Commission, and the Ontario Mortgage and Housing Corporation.

- abandoned mines, defined as any private or Crown owned mines not in operation when certain provisions of the *Mining Act* were enacted in 1991.

For financial aid purposes, the Ministry of the Environment and Climate Change and the Ministry of Northern Development and Mines each maintain their own financial assurance funds. These funds provide the government with financial security for certain activities inherently risky to the environment. The Ministry of the Environment and Climate Change's Financial Assurance Trust Fund addresses private waste facilities (e.g., landfill sites) and mobile PCB destruction facilities, while the Ministry of Northern Development and Mines' Mine Reclamation Fund addresses mining operations. Before commencing these environmentally sensitive activities, business operators, whether individuals or corporations, must deposit monies or provide other forms of financial security, such as bank letters of credit or performance bonds, to the funds. These securities provide resources for and evidence of the operator's financial commitment to complete any necessary future site remediation work when operations cease. Necessary remediation can include the cost of private waste facility closures or mining land reclamation, as well as post-closure costs such as longer term site monitoring and reporting, and other contingencies. The Province can draw on the financial resources in these funds if it incurs costs related to alleviating environmental risks or damage at a site.

Provincial government agencies, such as the Ontario Northland Transportation Commission, are responsible for contaminated sites on properties they own.

1.2.1 Ensuring That Land and Business Owners Meet Environmental Obligations

Private land and business owners in Ontario are responsible for maintaining their properties. This responsibility typically includes cleaning up any contamination that is on their property and/or taking necessary action to prevent neighbouring properties from being impacted by the contamination.

Much of the responsibility for remediating contaminated sites in Ontario therefore rests with private business operators and private property owners. As described earlier, for some high-risk business activities the province has additional mechanisms, such as requiring financial security, to ensure that owners appropriately discharge their environmental obligations. Another mechanism is to take legal action.

Under the *Environmental Protection Act*, the Province has the right to seek compensation from a third party for any costs it incurred for the prevention or remediation of damage to the environment caused by that third party. This loss or damage could be from a chemical spill or other contaminating event, and would include all reasonable costs incurred by the Province when cleaning up a contaminated site not properly cleaned up by the third party. However, exercising this right can be difficult or impossible for the Province if a contaminated site's owner is insolvent or if the business in question is no longer operating. Although the Province can take legal action against polluters, legal action can be costly. Therefore, the Province does not initiate legal action if it considers the likelihood of financial recovery to be remote or if it expects any amount recovered to be negligible. In such situations, the Province typically assumes full responsibility for site cleanup and all associated costs.

2.3.2 A Co-ordinated Approach to Contaminated Sites

The government has long recognized that it lacked a co-ordinated approach or method for assessing contamination risks across ministries and agencies. It has also long recognized the need for a system for centrally prioritizing the actions necessary to address contaminated sites as a whole. The government needs this co-ordinated approach and system in order to:

- consistently assess the risks associated with its contaminated sites;
- consistently prioritize sites to identify those most in need of remediation;
- consistently allocate appropriate funding to sites that pose the greatest risk; and
- develop a long-term funding model to ensure that remediation resources are allocated, on an ongoing basis, to where they provide the most benefit.

Recognizing that its approach to managing contaminated sites was fragmented, the government in its 2011 Budget announced its intention to co-ordinate its environmental cleanup activities across the province. Accordingly, the Treasury Board directed the ministries whose activities included the management of contaminated sites to together develop a comprehensive environmental cleanup strategy. The strategy was to include three initiatives: the consolidation of funding, the establishment of a single inventory of contaminated sites, and the development of a risk-based approach to prioritizing remediation projects. The Treasury Board also recommended the eventual creation of a centralized governance structure for contaminated sites managed by a new Contaminated Sites Project Office.

In August 2011, an Inter-ministerial Contaminated Sites Assistant Deputy Ministers' Steering Committee (ADM Steering Committee) was established to lead the government's co-ordination efforts. Its members included assistant deputy ministers from the Ministry of the Environment and Climate Change, the Ministry of Economic Development, Employment and Infrastructure, the Ministry of Northern Development and Mines, and the Ministry of Natural Resources and Forestry. As requested by the Treasury Board, the committee launched four working groups, each tasked with specific responsibilities under the three Treasury Board initiatives. The Inventory Working Group was to develop a single enterprise-wide inventory of all the Province's contaminated sites. The Risk Prioritization Working Group was to create a risk assessment model. The Policy Working Group and the Governance Working Group were to examine potential policy changes and governance frameworks, respectively, to enable better management of the Province's contaminated sites and minimize its future environmental liabilities.

A key outcome expected from this co-ordinated approach was the development and adoption of a single risk prioritization model for ranking all of Ontario's contaminated sites. As of spring 2015, the model was substantially complete and awaiting approval; however, the party responsible for approval has yet to be determined. The goal of the model is to provide a common methodology, using health and safety factors and other environmental considerations, for quantifying the risks associated with each contaminated property. Once assessed and quantified, each site could and would then be ranked. Ideally, all site data would be maintained in the new single inventory system. Ongoing review would keep the inventory current by adding new sites, updating information about existing sites, and regularly reassessing site rankings and funding priorities. The database would allow the relative risks associated with all provincial sites to be continually compared and prioritized, providing assurance to the Treasury Board that decisions about the ministries' funding requests to remediate contamination were based on government-wide priorities.

The Ministry of the Environment and Climate Change was responsible for reporting to the Treasury Board on its August 2012 initiatives. Specifically, the Ministry was to report to the Treasury Board in fall 2012 on the progress of the three working groups via the government's results-based planning process, with a final report to the Treasury Board in July 2013 containing detailed recommendations for establishing and operating the Contaminated Sites Project Office. However, although there has been some interim reporting to the Treasury Board, as detailed throughout this report, progress on the government's initiatives has been slow, and the final report remains outstanding.

1.3.3 Accounting for Contaminated Sites

New Accounting Standard

A new standard issued by the Public Sector Accounting Board titled PS 3260, *Liability for Contaminated Sites* (PS 3260), addresses accounting for and reporting liabilities associated with contaminated sites and their remediation. This standard is effective for the Province's fiscal year ending March 31, 2015.

Under PS 3260, a liability for remediation of contaminated sites must be recognized when, as of the financial statement reporting date, all of the following criteria have been met:

- an environmental standard exists;
- contamination exceeds the environmental standard;
- the government or government organization is directly responsible for or has accepted responsibility for the site;
- it is expected that future economic benefits will be given up to remediate the contamination; and
- a reasonable estimate of the cost of remediation can be made.

The standard calls for the government to calculate its contaminated site liabilities on a best estimates basis. All costs directly attributable to remediation activities are to be included in the liability, and the costs to be estimated are those deemed necessary to bring a site up to a level appropriate for its use. Directly attributable costs include, but are not limited to, payroll and benefits, equipment and facilities, materials, and legal and other professional services related to the remediation of the contaminated site, and would include any post-remediation operations, maintenance or required monitoring that are integral to the remediation strategy. The total liability recognized is based on the best available information, and is net of any expected recoveries.

The government recognized its liabilities for contaminated sites for the first time in accordance with PS 3260 in its March 31, 2015 consolidated financial statements. We concurred with the decision by the Office of the Provincial Controller Division (Provincial Controller's Office) of the Treasury Board Secretariat to implement this 2015 accounting change retroactively as an adjustment to the opening accumulated deficit with no restatement of the financial statements from previous periods. This treatment is supported by PS 2120, *Accounting Changes*.

The implementation of PS 3260 and the government's recognition of its liability for contaminated sites increased the environmental liabilities recognized in the province's consolidated financial statements by $1.685 billion, from $107 million recognized in previous years to a new total liability as of March 31, 2015 of $1.792 billion. The Provincial Controller's Office had the lead responsibility for implementing the new standard. Ministries and their consolidated agencies were required to identify, estimate and report to the Provincial Controller's Office all liabilities related to contaminated sites in their respective jurisdictions. Although this report details several concerns we have regarding the precision of the government's liability estimate and the need to improve it over time, we were satisfied with the completeness of the ministries' efforts in identifying all of their high-risk sites. However, it is possible that changing circumstances over time will result in more sites being recorded as a contaminated sites liability. That is, future events or new information could change the status of a site that currently does not meet PS 3260's requirements for a contaminated sites liability.

In reaching our conclusions, we were comforted by the PS 3260 standard, which itself recognizes that the government's initial estimate of its contaminated site liability may lack precision and allows for improvements over time. For example, PS 3260.48 states: "A government's total liability may not necessarily become determinable at a specific point in time. The amount of a liability may become determinable over a continuum of events and activities as information becomes available. For example, the estimate of costs may only become known as the government completes the various stages of assessing the extent of the contamination. In these cases, the government would recognize a liability based on management's best estimate at the time."

In Chapter 2 of our *2014 Annual Report*, we noted that PS 3260 would not be an easy standard to implement. Estimating environmental liabilities can require considerable use of specialists, such as site assessors, engineers and others, to determine if and how badly a site is contaminated. We acknowledged that it would take time to establish a complete inventory of sites, and even more time to populate this inventory with accurate, credible and reliable assessment information sufficient to allow for reasonable estimates of the future costs of remediating each site. We also noted that since standards are open to interpretation in places, considerable professional judgment needs to be exercised to implement them.

1.4 Estimate of Liability for Contaminated Sites

1.4.1 Liability for Contaminated Sites by Ministry

The Province's total liability for remediating its contaminated sites is estimated to be $1.792 billion as at March 31, 2015. **Figure 3** provides details of this total by ministry, listing the number of contaminated sites included in the liability estimate. In situations where it is not certain whether the Province will be responsible for future costs for a particular site, the government provides disclosure as a contingent liability in its notes to the financial statements. The government has not yet decided on an approach to funding the work necessary to eliminate its contaminated site liabilities.

1.4.2 Liability for Contaminated Sites by Site Usage

PS 3260 recommends that the government's financial statements disclose information regarding the nature and source of its liabilities for contaminated

Figure 3: Liability for Contaminated Sites by Ministry and Government Agencies

Source of data: 2014/15 Public Accounts and Ministries

Ministry	Potential Number of Contaminated Sites[1]	Number of Contaminated Sites Recorded as Liability	Total Liability as of March 31, 2015 ($ million)	Number of Sites Disclosed as Contingent Liability Note Disclosure	Total Contingent Liability ($ million)[2]
Ministry of the Environment and Climate Change	33	28	**377**	3	**0**
Ministry of Northern Development and Mines	362	44	**303**	12	**69**
Ministry of Natural Resources and Forestry	130	120	**808**	10	**10**
Ministry of Economic Development, Employment and Infrastructure	82	40	**141**	0	**0**
Ministry of Municipal Affairs and Housing	53	3	**62**	50	**295**
Ministry of Transportation	106	41	**42**	0	**0**
Government agencies and broader-public-sector entitites[3]	13	12	**59**	1	**9**
Total	**779**	**288**[4]	**1,792**	**76**[5]	**383**

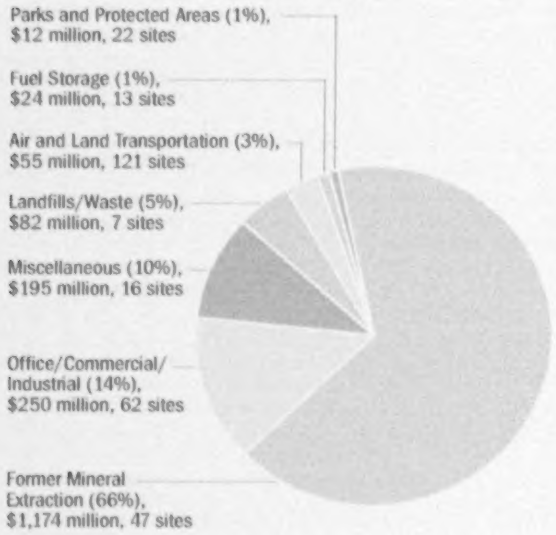
1. Sites include both land and buildings as of March 31, 2015.
2. A contingent liability note disclosure is required when the future event to confirm government's responsibility is not determinable.
3. Government agencies that have a contaminated sites liability include Ontario Place Corporation and Ontario Northland Transportation Commission. Broader-public-sector entities that have a contaminated sites liability include various hospitals, schools and colleges. Those government agencies whose financial statements already include environmental liabilities, based on accounting standards that differ from those of PSAB, are not included in **Figure 4**. Those agencies include Ontario Power Generation Inc. and Hydro One Inc.
4. 288 of the potential total of 779 sites have been recorded as liability. The remaining 491 have not met the recognition criteria in accounting standard PS 3260. Where an estimate can be made, a dollar value has been included.
5. Of the 491 sites for which the government has not recorded a liability, 76 have been disclosed as contingent liabilities in the notes to the government's financial statements because its responsibility for them was not determinable. No liability has been recorded for the remaining 415 sites (491–76) because the contamination on them does not exceed an environmental standard, they are low-risk sites causing no adverse effects, or they are the responsibility of private-sector owners of the sites.

sites. In compliance with this recommendation, the government groups its contaminated sites into seven categories, according to how the sites are or were being used. **Figure 4** details the Province's liability for contaminated sites in the various categories. Two categories dominate: former mineral extraction sites and office/commercial/industrial sites together represent $1.4 billion or 80% of the Province's total liability.

Several appendices to this report provide supplementary information about contaminated sites in general and Ontario's contaminated sites in particular. Contamination can take many forms and arise from many sources. **Appendix 1** provides details on the nature and sources of the contamination for each of the government's site usage categories. There are also many different approaches to remediating contaminated sites. To illustrate this variety and the complexity of the issues faced in remediating the Province's contaminated sites, **Appendix 2** provides an example of a contaminated site for each site usage category, along with background information on the site and the contamination on it. **Appendix 3** provides a glossary of common terms related to contaminated sites. **Appendix 4** provides the location for each contaminated site in Ontario for which the government has recorded a liability as of March 31, 2015.

Figure 4: Contaminated Sites Liability by Site Usage

Prepared by the Office of the Auditor General of Ontario



Total liability is $1,792 million for a total number of 288 sites.

Appendix 5 provides details on the 10 sites for which the province has recorded its largest contaminated site liabilities.

1.4.3 Environmental Site Assessments

An environmental site assessment is a study of a property's past use and its current environmental condition. An environmental site assessment addresses whether a site is contaminated, or, if uncertainty exists, whether contaminants are likely to be present. Environmental site assessments also consider whether contaminants are moving or have the potential to move off-site, and thus affect adjoining properties. An environmental site assessment may be required by law, such as when a change of land use is being considered, or the government may conduct an environmental site assessment at a particular site for its own purposes.

Ministries often engage outside experts to carry out environmental site assessments on their behalf. These experts then often recommend appropriate remediation strategies for addressing any site contamination identified in the assessment. The Canadian Standards Association has guidelines for carrying out such site assessments, which are typically done in two phases—a preliminary phase (Phase 1) and an in-depth or detailed phase (Phase 2). **Figure 5** describes these phases more fully.

The Ontario government uses environmental site assessments to identify contaminants, assess the nature and degree of contamination on its sites, and develop remediation plans. Environmental site assessments were often the basis for the liability recorded by the Province for its contaminated sites.

With the information obtained from both Phase 1 and Phase 2 environmental site assessments, contaminated sites can be classified in accordance with a federal National Classification System (System) developed in 1992 by the Canadian Council of Ministers of the Environment. This System provides a documented and uniform approach to classifying sites as high, medium or low risk, and was designed to help prioritize sites for

Figure 5: Environmental Site Assessment Phases

Source: Canadian Standards Association

Phase 1	• A preliminary investigation conducted to reveal any potential significant environmental concerns • Determines if there is sufficient risk to necessitate further assessment work • Commonly includes such procedures as researching the site's history and past records and performing surface and perimeter inspections (e.g., taking soil samples)
Phase 2	• A detailed site investigation to confirm and quantify any contamination identified in a Phase 1 assessment • Commonly includes drilling deeper into the site to obtain a number of soil and groundwater samples for laboratory testing and analysis

future investigative work, remediation or other risk management actions. The government chose not to use this System because it would have automatically given sites that had not been assessed either no priority or too low of a priority. However, in developing its own risk prioritization model, Ontario used aspects of this System and other models used in international jurisdictions, which resulted in a risk-based approach to assessing its contaminated sites, classifying them as high risk or low risk.

High-risk sites are those determined to have adverse effects on human health or the environment, typically when there is contamination on the site combined with a means, route, or pathway by which communities, ecological systems, properties, or bodies of water are being or could be adversely affected by that contamination. Low-risk sites are those that are not creating any adverse effects on the communities, ecological systems, properties, or bodies of water in the area.

1.4.4 Ministry of Northern Development and Mines Rehabilitation Value-for-Money Audit Report

This year, our Office audited the Ministry of Northern Development and Mines' Rehabilitation program. **Section 3.11** of this year's *Annual Report* (Mines and Minerals audit report) details the findings from this audit, highlighting a number of mine sites for which the government is potentially financially responsible. It should be noted that the scope of that audit is broader with respect to mines than this one, in that it examined a wide range of risks the government faces in its management and oversight of provincial mining operations, including both contaminated sites and non-contaminated sites. This report's focus is narrower, examining only those operations for which the government has or may be required to record a contaminated site liability under PS 3260. **Appendix 6** provides a reconciliation of the 4,412 mining sites maintained in the Ministry of Northern Development and Mines' Abandoned Mines Information System (AMIS) to the 56 sites from that system for which the government has either recorded a contaminated site liability (44 sites) or provided contaminated site contingent liability note disclosure (12 sites).

Physical hazards are not contamination and are not covered by PS 3260, and therefore the estimates for contaminated sites exclude the cost of rehabilitating any physical hazards. The Mines and Minerals audit report discusses the possible rehabilitation work needed to remove a number of physical hazards at Ontario mines. The estimated costs for rehabilitating physical hazards do not meet the PSAB accounting standard requirements for recording them as a liability. However, the government will continue to monitor these physical hazards.

2.0 Audit Objective and Scope

Our audit objectives were to assess whether, in its implementation of accounting standard PS 3260, *Liability for Contaminated Sites*, the government had:

- effective processes and systems in place to ensure that it had identified its contaminated sites, sufficiently assessed their risks, and developed appropriate remediation plans to address their contamination; and
- sufficient and appropriate evidence to support its measurement and reporting of the Province's contaminated sites liability in Ontario's March 31, 2015 consolidated financial statements.

2.1 Key Ministries

Our work focused primarily on six key ministries with responsibilities for known contaminated sites: the Ministry of the Environment and Climate Change; the Ministry of Northern Development and Mines; the Ministry of Natural Resources and Forestry; the Ministry of Economic Development, Employment and Infrastructure; the Ministry of Municipal Affairs and Housing; and the Ministry of Transportation.

We held discussions with officials from the Treasury Board Secretariat's Office of the Provincial Controller Division at the beginning of the engagement and throughout it to review progress and resolve issues as they arose. We also met with staff from the six key ministries to review and document the risks of, and the processes they followed in, implementing PS 3260 at the program level.

Our work included reviewing ministry policies, procedures manuals, and documentation such as environmental reports and site assessments. We performed detailed walkthroughs of each ministry's contaminated site assessment process and documented each ministry's key controls for identifying, measuring and reporting on its contaminated sites. We also selected a sample of contaminated-site files at each ministry for detailed testing.

The government reporting entity comprises over 300 consolidated provincial agencies. The liabilities for contaminated sites reported by most of these agencies were recorded in the Province's financial statements through a consolidation process. In this regard, we relied on the work of both audit teams in our own Office and the external auditors of these agencies. However, certain agencies that had significant land and property and infrastructure holdings were subject to more scrutiny during our audit. This scrutiny included meeting with the agencies' staff, examining the environmental assessments done on the agencies' contaminated sites, reviewing related analyses, and discussing liability estimates with the agencies' management and their auditors.

2.2 Ontario Internal Audit Division Work

We used the work of the Ontario Internal Audit Division (Division) to support our audit of the Province's contaminated sites liability. The Division, at the request of the Office of the Provincial Controller, had recently completed an assessment of the Province's financial processes and controls supporting the implementation of PS 3260 with the objective of identifying opportunities to strengthen:

- ministry processes for identifying, measuring and reporting potential liabilities for contaminated sites for the purposes of 2014/15 and ongoing Public Accounts financial reporting;
- corporate guidance to help support ministries to effectively report their liabilities for contaminated sites; and
- processes supporting the establishment of an Ontario Public Service-wide centralized listing including related monitoring and reporting of contaminated sites information.

The engagement was performed across four ministries that the Division identified as likely having contaminated sites and that had been included in the Treasury Board's earlier direction to the government regarding contaminated sites: the Ministry of the Environment and Climate Change; the Ministry of Northern Development and Mines; the Ministry of Natural Resources and Forestry; and the Ministry of Economic Development, Employment and Infrastructure.

We obtained and reviewed the Division's work as well as its final audit report. We determined that we could rely on the Division's work for the purposes of our audit, and did so in gaining our understanding of a number of ministry processes and procedures with respect to its contaminated sites.

2.3 Reliance on External Experts

To assist in our audit, we engaged an environmental expert. This specialist assessed the reasonableness of certain environmental site assessments the government had commissioned, its remediation strategies, and its cost estimates. The specialist also helped us assess key assumptions used by the government, such as the number of years it would take for a site to be remediated, or the appropriateness of an inflation rate used when estimating expenditures related to a particular remediation project.

We also held discussions with staff from Auditor Generals' offices in several other jurisdictions to review the implications and requirements of the new accounting standard, discuss implementation issues with them, and compare our audit observations.

3.0 Summary

Contaminated sites can pose serious risks to public health and safety. Governments either have or, under certain circumstances, may need to assume responsibility for cleaning up contaminated sites. To fulfill this public responsibility, governments need robust systems for identifying contaminated sites in their jurisdictions, assessing the nature and extent of contamination on these sites, developing and implementing programs to mitigate the risks posed by these sites to the public and the environment, and remediating these sites for future use.

Our audit found weaknesses in the government's processes for identifying, measuring, and reporting on its contaminated sites liability. These weaknesses heightened the risk that the Province's liability could be misstated. We reduced this risk by developing and performing a number of audit procedures, and our audit work identified errors totalling $95 million in ministry calculations that initially understated their environmental liabilities. Ministries adjusted their records for these errors. Based on our work, we were able to conclude that the government's estimate of its contaminated sites liability as reported in the Public Accounts for the year ending March 31, 2015 was reasonable.

As with any estimate, there remains an inherent risk that the government's calculation of its contaminated site liability is incomplete and inaccurate. Given the unique nature of many contaminated sites, estimating the Province's liability for them is undoubtedly complex, often requiring specialized and costly expertise and resources. While we were satisfied with the government's efforts to identify all sites for which it is financially responsible, we do have concerns regarding the accuracy of the government's estimate of its liability for these sites, and would like to see a continued focus on improving the precision of this estimate in future years as more assessment work is done and updated site or other new information becomes available.

Overall we found that there was no centralized ministry oversight over the ministries' processes for managing their contaminated sites and estimating their contaminated site liabilities. Without proper oversight, government initiatives are rarely implemented effectively or on a timely basis. This lack of oversight is ultimately responsible for most of the errors and issues identified throughout this report. For example, poor oversight negatively affected the government's planned introduction of a centralized database of contaminated sites and its implementation of a risk prioritization model for remediating these sites. Both areas need future attention to ensure that the government effectively manages its contaminated sites and minimizes their impact on public health and safety.

The following are our key observations related to measuring, prioritizing and managing the risks associated with the province's contaminated sites:

- **Centralized inventory for contaminated sites needed**—Without a centralized inventory, it is difficult to form a complete picture of, or track progress in, managing the government's contaminated sites. We found a few instances where more than one ministry reported being responsible for the same contaminated site. Confusion over responsibility can result in unnecessary duplication in both accounting records and site management efforts. A centralized inventory of contaminated sites would greatly reduce the risk of such situations arising, thus reducing the risk of duplicating both efforts and costs.
- **High-risk sites need to be prioritized for remediation**—Without an Ontario Public Sector-wide risk prioritization model that captures all contaminated sites and prioritizes

them together, the government risks funding low-priority sites for remediation before high-priority sites that have a higher impact on public health or safety.

- **Lack of funding and resource allocation strategy for remediation**—Although the government has identified all of its high-risk contaminated sites, it lacks a central leader (such as the contemplated Contaminated Sites Project Office) to manage this cleanup process from a government-wide perspective. Without a funding and resource allocation strategy, the government may leave the public exposed to long-term risks to human health or the environment. We found that the government has no plan or fund in place for cleaning up its contaminated sites. The government should firmly commit to remediating its contaminated sites in a timely manner, and this means ensuring that ministries and government agencies have access to sufficient funds to clean up the sites they are responsible for. The government also needs a system of periodic reporting on the progress made in remediating its sites. For this process to be effective, it needs to be done within the context of an approved funding plan. We note that, despite the Treasury Board's 2012 call for a co-ordinated approach to the Province's contaminated sites, very little remediation work has been completed to date, and a prime reason for this is the lack of funding. The government should consider establishing a central funding program to provide ministries with the resources they need for their cleanup work, and combine this with proper oversight to ensure that these funds are managed appropriately and spent on the highest-priority cleanup projects. Ideally, such a funding program would be long-term in nature.

The following are our key observations related to improving the process for estimating the Province's contaminated sites liability:

- **Improved guidance needed to ensure consistent liability estimates**—Without clear direction, ministries may make errors in accounting for and reporting their contaminated sites. The Provincial Controller's Office can reduce this risk by providing ministries with additional guidance in several areas, such as clarifying the types of costs that should be included in the liability calculation; clarifying if, when and how present value accounting techniques should be applied; and providing approaches to estimating a liability in the absence of an environmental site assessment.
- **Inadequate documentation supporting the contaminated sites liability**—Without adequate documentation, there is a risk of misstating the number of contaminated sites the government has responsibility for and/or the cleanup costs associated with these sites. There is also the broader risk of loss of critical information when key staff who have this knowledge retire or leave government. We noted the ministries had poor documentation concerning identifying contaminated sites, applying risk-based approaches to classifying sites, choosing remediation strategies, and estimating a contaminated site's cleanup costs. There was also incomplete support for the assumptions made by ministries both in their decision-making processes and in estimating liabilities.
- **No policies or processes for updating liability estimates**—Without formal updating processes, there is a risk that the calculations supporting the government's reported contaminated sites liability will lose accuracy over time. Ministries need to monitor their sites and review them annually to determine if updated environmental site assessments are required or if liability estimates need to be revised to reflect changes in technology, site conditions, environmental standards, inflation or other factors.

Our recommendations focus on strengthening the government's processes for managing its contaminated sites and its processes for estimating the cost of remediating these sites. This report contains seven recommendations, consisting of 12 actions to address the findings noted during this audit.

We appreciate the cooperation we received during the audit from the Provincial Controller's Office, Internal Audit Division, and the ministries and agencies reporting contaminated sites.

OVERALL MINISTRIES' RESPONSE

Contaminated sites can impose a high cost on Ontarians, both financially and in terms of health and safety risks, and the Province will respond to those risks as they arise. Implementation of a central oversight function will support effective risk mitigation and coordinated management of contaminated sites across government. In addition, the government is finalizing a formal site assessment framework (supported by a centralized inventory of contaminated sites) which will facilitate prioritization, risk management and reporting for contaminated sites.

During the period over which the formal site assessment framework has been under development, the government has continued to exercise a risk-based approach to managing contaminated sites where ministries have continued to exercise accountability for managing risks for individual contaminated sites.

The implementation of PSAB's new accounting standard resulted in a broader scope of liabilities being recognized in the Province's books which has enhanced transparency and accountability in reporting to the legislature and the public. Important insights were gained through our experience implementing the new accounting standard and we appreciate the efforts of both Ontario's Internal Audit Division and the Office of the Auditor General in helping to refine the government's reported liability and to identify areas for further improvement.

4.0 Key Observations and Recommendations

Our audit found several instances of ministries making errors in initially estimating their liability for contaminated sites. These errors arose from deficiencies in the processes put in place to address the requirements of the new contaminated sites accounting standard. All of these errors were corrected by ministries before the Province's March 31, 2015 consolidated financial statements were finalized. The rest of this report discusses the deficiencies that caused the errors and other deficiencies that will impact the minstries' ability to manage their contaminated sites, and provides our recommendations.

4.1 Need for Centralized Oversight of Contaminated Sites

Without proper oversight, governments cannot ensure that their initiatives are implemented as expected or on a timely basis. We noted poor oversight over the processes used in the government's contaminated sites initiative, and this lack of oversight was ultimately responsible for most of the issues identified and errors found during our audit. We noted that although the Assistant Deputy Ministers' Steering Committee planned to meet monthly under its Terms of Reference, it had met only twice since being created in August 2012. We also noted that the working groups the Committee had established to deliver under the Treasury Board's three contaminated sites initiatives had not fully completed their work, and no new or existing provincial lead body had yet been assigned overall responsibility for overseeing the implementation of the initiatives. Accordingly, while progress has been made, overall we concluded that the work requested by the Treasury Board in the 2011/12 fiscal year had not been satisfactorily completed.

Because oversight was lacking, ministries did not have sufficient direction to ensure that they correctly assessed their contaminated sites and estimated the liabilities associated with them. For example, one ministry identified 82 sites for which it was responsible as high risk with potential contamination. It then estimated its liability for these sites solely on the potential for contaminants at these sites to move off-site and affect adjacent properties or resources. On this basis, the ministry estimated and recorded a government liability of $64 million for 24 of these sites. After discussion with government legal services and other ministry environmental officials and a review of the *Environmental Protection Act*, we concluded that this approach was incomplete. Under the *Environmental Protection Act*, several factors must be considered when determining whether a contaminated site requires remediation. Contamination can have adverse effects on humans or the environment regardless of whether it is currently moving or could move off-site in the future and affect adjacent properties. Based on our review, we recommended that sites with on-site adverse effects also be reviewed and considered for potential inclusion in the liability estimate.

The Ministry agreed with our recommendation, and, after further review, recorded an additional contaminated site liability of $77 million related to an additional 16 sites. A government liability was not recorded for the remaining 42 sites because any contamination on those sites did not exceed environmental standards and there were no adverse effects associated with the sites. A good oversight process would have identified and addressed this measurement issue prior to our audit.

Accountability for identifying, assessing and evaluating contaminated sites would be enhanced if the government designated a project lead (e.g., a dedicated central unit or ministry group) for centralized oversight of all ministries' management of contaminated sites. This lead would be responsible for managing the centralized inventory database and ensuring that all participating ministries were addressing their inventory of contaminated sites appropriately. It could work to ensure that remediation projects were executed in a consistent manner across government, identify and initiate improvements to the remediation process, and provide guidance on the risk-based approach to ranking contaminated sites province-wide. The project lead should ideally consist of an integrated team of subject matter experts, and would need to be provided with appropriate authority and resources. The lead could also help ensure that ministries adopt remediation strategies that make sense, monitor the government's progress in remediating its sites, and ensure that the government's liability estimate is updated appropriately on an annual basis. The government could establish a new entity (such as a division or branch) for this lead role, such as the contemplated Contaminated Sites Project Office, or the role could be fulfilled by one of the stakeholder ministries or by a team of representatives from the stakeholder ministries.

RECOMMENDATION 1

To ensure that contaminated sites for which the government is responsible are identified and properly assessed, and that provincial liabilities are identified and valued on a timely basis:

- the government should designate a central unit or ministry group with overall responsibility for managing contaminated sites; and
- The Inter-ministerial Contaminated Sites Assistant Deputy Ministers' Steering Committee should be reconvened to perform an oversight role until this function or co-ordinated team is established.

MINISTRIES' RESPONSE

The government recognizes the benefit of a central oversight function to support effective risk mitigation and management of contaminated sites. We concur with the Auditor General's recommendations and will establish a central oversight function to ensure a coordinated and consistent approach to the identification, tracking, risk assessment and prioritization of contaminated sites across government. Ministries will continue to exercise their accountability for managing risks for individual sites.

The government will implement the appropriate governance structure to address both immediate and long-term needs for central oversight of contaminated sites.

4.2 Improvements Needed in Tracking, Prioritizing and Funding Remediation of Contaminated Sites

4.2.1 No Centralized Inventory of Contaminated Sites

The government does not have a centralized inventory of its contaminated sites. Rather, each ministry tracks its own sites and maintains its own records of actions taken regarding them, such as environmental site assessments or remediation efforts. Without centralized information, it is impossible to track and therefore difficult to prioritize and fund these actions using a government-wide perspective.

Working together, the four ministries (Ministry of the Environment and Climate Change, Ministry of Northern Development and Mines, Ministry of Natural Resources and Forestry, and Ministry of Economic Development, Employment and Infrastructure) planned to develop a centralized database of contaminated sites and populate that database with existing and any additional detailed information on all contaminated sites by March 31, 2015. However, this centralized database has not yet been completed. At the time of our audit, the centralized database had become less ambitious: the four ministries were contemplating creating a more basic central inventory that would house only certain core data for each of the Province's contaminated sites. Detailed records would continue to reside at individual ministries and be maintained by ministry personnel. Such a less-detailed listing of contaminated sites will not be as useful to the government as the more comprehensive centralized inventory originally planned.

We believe that such a database should actually be expanded over time to include more than just those sites for which the government has recognized and quantified a financial obligation. Ideally, the database would serve as the government's complete contaminated sites inventory, eventually including information on both its high-risk and its low-risk sites. Processes should be put in place for adding new sites to the database, allowing for the incorporation of detailed information about a site and its environmental history at any time. We believe that the database should also eventually include sites where environmental site assessments have not yet been performed, as well as sites where uncertainty exists as to whether the Province will or will not be financially liable. Such a database would help ensure that the government:

- has a complete and accurate picture of all contaminated sites for which it is or may become responsible;
- can determine what work has been done to date at a particular site—for example, historical reviews; Phase 1, Phase 2, or supplemental environmental assessments; if a remediation action plan has been developed and approved; and what has been spent thus far on remediation efforts;
- can compare sites across ministries, government agencies and the broader public sector for assessment and ranking purposes using the same risk prioritization model;
- can track progress on remediation efforts;
- can be certain that no site is included more than once, even if multiple ministries share responsibility for it (in the absence of a centralized inventory, two ministries had recognized a $43 million liability for the same site); and
- can provide appropriate public disclosure regarding the execution of its contaminated sites obligations. In this regard, we encourage the government to provide public information on all contaminated sites. We note that the federal government already provides

contaminated site information via an on-line link through which the public can access information on each of its contaminated sites.

A well designed centralized database could, in fact, provide the government with much more than just accurate information. Ideally, it would enhance the government's planning processes and serve as a government-wide resource allocation tool. The inventory's usefulness would increase over time as it grew to contain relevant and reliable information about all of the Province's contaminated sites, including for each site such details as its location and general conditions; the nature and degree of contamination at the site; whether the site has yet been subject to an environmental assessment; the phase, date and result of any such assessments; whether a remediation plan was in place and if so, when it was approved, what was budgeted for remediation and how much of this budget had been spent to date; remediation completion dates; and other long-term plans and activities with regard to the site. The inventory could thus be of use to the government throughout the entire life cycle of contaminated site management.

RECOMMENDATION 2

To ensure that the government has a complete picture of its existing and potential contaminated sites liability, the stakeholder ministries should ensure that:

- a centralized database inventory of all contaminated sites is developed and implemented; and
- the public has access to information on contaminated sites for which the government has recorded a liability.

MINISTRIES' RESPONSE

As part of the government's initiative to enhance governance over contaminated sites, the Office of the Provincial Controller, in collaboration with stakeholder ministries, has completed a review of existing technologies to track contaminated sites across the province with the intent to establish and implement an enterprise-wide central inventory of all contaminated sites in 2016.

The government is currently disclosing financial information on contaminated sites in accordance with Public Sector Accounting Standards. Analysis will be undertaken to support future government decisions on the extent and nature of public access to information on contaminated sites.

4.2.2 Ontario Public Sector-wide Risk Prioritization Model Not Yet Implemented

Given constraints on both the amount of funding and the amount of ministry staff time available in any given year, prioritizing the use of government funds and other resources is essential. At the time of our audit, the Ministry of the Environment and Climate Change had developed an Ontario Public Service-wide risk prioritization model for contaminated sites, but the model had not yet been approved or implemented. At the time of our audit it was awaiting approval; however, the party responsible for approving the risk prioritization model has yet to be determined. The government plans to roll the approved model out to ministries by March 2016.

Without a system in place for prioritizing and ranking proposed remediation efforts, the government risks funding low-priority projects before more significant ones. Competing priorities make it imperative that the government allocate remediation funding where it will provide the most benefit to the public in terms of protecting human health and the environment.

An effective risk prioritization system must include a process for ensuring that the government has enough information to enable it to appropriately assess its environmental risks across all government programs, ministries, and agencies, and to do so on an annual basis. Only such a government-wide process ensures that available funding is consistently allocated to the highest risk sites. As noted earlier, **Appendix 3** provides an example of a contaminated site for each site usage category. The significant differences among these environmental situations illustrate the difficulties in prioritizing projects. Ranking these various environmental situations and determining which ones pose the greatest risks to human health or the environment is challenging. A well developed risk prioritization model implemented throughout government would be a key step in enabling this challenge to be met effectively.

RECOMMENDATION 2

To ensure that the cleanup of high priority sites is consistently funded before that of low priority sites, the stakeholder ministries should finalize the risk prioritization model and ensure that ministries use this model to assess all remediation funding proposals.

MINISTRIES' RESPONSE

The focus of the government in 2014/15 was to effectively implement PSAB 3260, including a reasonable estimate of the contaminated site liability as at March 31, 2015 for Public Accounts purposes. At the time of the audit, the government's efforts to adopt a consolidated risk based prioritization tool were also well underway. Ministries worked with a consultant to develop a risk based prioritization tool that will allow for both the prioritization of sites for remediation, as well as the prioritization of sites that require further study, on a government-wide basis. Approval of the tool and adoption by the ministries is expected in the current fiscal period. Effective implementation of the tool in conjunction with the oversight function will help to mitigate the risk of the government proceeding with remediation on low priority sites before higher priority sites.

4.2.3 Need for a Government-wide Funding and Resources Allocation Strategy

The government currently has no overall funding strategy or resources allocated specifically for the management of its contaminated sites. Without dedicated funding and sufficient dedicated resources, high risk contaminated sites could be improperly classified as low risk, or inappropriate remediation strategies could be selected for particular sites. Remediation strategies selected because of resource constraints may keep current costs low but prove much more costly later. Failure to properly address this issue risks shifting the costs associated with contaminated site remediation to the next generation of Ontarians, negatively impacting the Province's ability to preserve a healthy and sustainable environment for future years.

Ministries did not receive any specific or additional funding or other resources to assist in the implementation of PS 3260, *Liability for Contaminated Sites*. To ensure that their sites were adequately assessed, they were therefore required to use existing program funding and resources in the contaminated sites initiative. Due to funding constraints, sites classified as low risk were not fully assessed, because neither Phase 1 nor Phase 2 environmental assessments were conducted on them. While additional funding may be required in the future to more thoroughly review some of these sites and conduct environmental assessments where conditions warrant, based on our work we were satisfied that the classification of these sites as low risk was reasonable, and accordingly no liability needed to be recorded for them.

In recording its contaminated sites liability, the government is in essence publicly committing to and disclosing the future economic resources it expects to give up for the purpose of remediating these sites. Part of the assessment of each ministry's funding needs should therefore relate to these remediation efforts. Annual funding should be approved within the context of a longer-term plan for cleaning up the contaminated sites for which the Province has recorded a liability. The government should use its risk prioritization model in deciding on its annual funding and resource allocation priorities. A good process would ensure that allocation decisions are continually reviewed and revised as needed to reflect the latest available information, and plans adjusted accordingly to ensure resources are dedicated to the highest risk sites.

RECOMMENDATION 4

To ensure that ministries have sufficient resources available to remediate their high risk sites in a prudent manner, the stakeholder ministries should:

- co-ordinate the development of a long-term plan for remediating the Province's contaminated sites. The plan should incorporate both an annual and a long-term funding strategy; and
- periodically report to the Treasury Board, on a consolidated basis, their progress in remediating sites under their annual and long-term plans.

MINISTRIES' RESPONSE

The enterprise-wide inventory of contaminated sites, including all new liabilities reported under the new standard, and prioritization thereof, will enhance risk prioritization and resource allocation decisions to inform the funding strategy for the remediation of contaminated sites. Ministries will be asked to provide rolling updates to their long-term remediation plans, including their cash flow forecasts related to remediation work planned each year, and to report on progress.

Periodic reporting to the Treasury Board/Management Board of Cabinet would improve transparency on the progress and outcomes ministries have achieved in remediating contaminated sites. This approach aligns with the government's commitment to outcome-related measures which assess the effectiveness and efficiency of government programs and activities. Reporting considerations will be addressed as part of the design and implementation of a central oversight function.

4.3 Improvements Needed in Liability Estimation Process

4.3.1 Need for Consistent Estimation

The government needs to improve the guidance it provides ministries to help them estimate their contaminated sites liability. Without clear direction, ministries have been developing and applying different approaches to assessing and evaluating their particular contaminated sites. The Provincial Controller's Office has the lead responsibility for implementing the new accounting standard, and we noted that it did provide some implementation guidance to ministries in the form of presentations, templates and technical documents. Although this has been helpful, additional guidance would help ensure that the types of errors we found in our audit do not reoccur.

We identified errors totalling $[illegible] million in the government's initial liability estimates for contaminated sites. Although the ministries responsible for the affected sites corrected all of these errors before their liabilities were included in the Province's consolidated financial statements, these errors could have been avoided if ministries had had guidance on a number of technical implementation issues. When these issues arose, time and resource constraints often meant guidance was provided late or, in some instances, no guidance was provided from the Provincial Controller's office.

Ministries could benefit from additional direction from the Provincial Controller's Office in the following specific areas:

- *Clarifying the nature of direct costs that should be included in the liability estimate.* Direct costs are for such things as environmental site assessments and land use studies.

- *Providing examples of when it would be appropriate to use present value accounting techniques to discount the expected future cash flows related to a contaminated site.* Guidance should cover how calculations should be made in such circumstances, how to determine appropriate discount or inflation rates, and how to determine the appropriate time period to use in the discounting process.
- *Calculating and accounting for certain remediation costs,* such as the costs of ongoing monitoring and site maintenance that are an integral part of a remediation strategy, particularly if such costs are expected to form part of a perpetual government obligation.
- *Defining assets in productive use.* We suggest that the guidance refer to the Public Sector Accounting Board's Statement of Principle on Retirement Obligations. This document defines a tangible capital asset (such as a dam or a provincial highway) as being in productive use "when held for use in the production or supply of goods and services, for rental to others, [or] for administrative purposes." The Provincial Controller's Office should also provide guidance regarding when a liability for contamination should be recorded on assets that are still in productive use.
- *Estimating a liability when no specific environmental assessment work has done on the site.* This type of guidance should help ministries that may need to base a liability estimation for a particular site on past experience with comparable sites.

RECOMMENDATION 5

To ensure that the government's ongoing contaminated sites liability estimate is reasonably and consistently calculated, the Office of the Provincial Controller Division should provide formal guidance to ministries on how to account for and measure these liabilities.

MINISTRIES' RESPONSE

Important insights were gained through Ontario's experience implementing PSAB's new accounting standard. Significant challenges encountered in implementing the standard included interpretative issues related to the standard, completeness of contaminated site inventories and estimates of remediation costs. Through effective collaboration and communication, a reasonable estimate of liabilities for contaminated sites was achieved.

Building on this challenging but successful experience, the Office of the Provincial Controller Division will undertake to work with ministries in 2015/16 and with both the Internal Audit Division and the Office of the Auditor General to enhance accounting guidance to ministries for reporting on contaminated sites under the new standard.

4.3.2 Inadequate Documentation Supporting Liability Estimates

We found that the ministries' documentation to support their contaminated sites liability estimates was often incomplete. Inadequate documentation raises the risk of errors in, for example, reporting the number of government contaminated sites or recording the liability associated with a site. Poorly documented files could also lead to permanent loss of critical information when staff with detailed knowledge of site conditions retire or otherwise leave the government.

The process used to estimate each ministry's contaminated sites liability included identifying potentially contaminated sites, using a risk-based approach to assess which sites were highest risk, conducting environmental site assessments or having assessments conducted on the highest-risk sites, identifying remediation options and choosing the most appropriate remediation strategies, and quantifying expected remediation costs. We found each of these processes was poorly documented to varying degrees among ministries.

To compensate for this inadequate documentation, additional audit work was necessary to ensure that we obtained the sufficient and appropriate audit evidence needed to support our opinion on the government's liability estimates. We conducted detailed testing on a number of contaminated site files and engaged an environmental expert. We reviewed ministry assumptions and remediation plans and assessed their reasonableness. We also documented and tested ministry processes and discussed numerous valuation and assessment issues with ministry staff as the audit progressed. As a result, despite the shortcomings initially observed, we were able to conclude that ministry liability estimates were reasonable and sufficiently accurate to support the total contaminated site liability reported in the Province's consolidated financial statements.

The following subsections provide examples of improvements that we think ministries should incorporate into their documentation practices. An example is provided for each major stage of the process of assessing and evaluating contaminated sites.

Site Identification Processes Inadequately Documented

Each ministry developed its own process for identifying contaminated sites. Although we concluded that each approach had been effective, some ministries inadequately documented their processes. Specifically, some ministries had not documented the methods they used or had not fully documented the work they performed in identifying the contaminated sites for which they were responsible. The ministries also did not consistently document such items as the site history, the timeline of activity on it, any known impacts on adjacent properties, its location and geology, its similarity to other sites, or the results of any environmental assessments or investigative reports.

Risk-based Approaches Inadequately Documented

Some ministries applied a risk-based approach to identifying their highest-risk contaminated sites. These sites are the ones ministries intend to prioritize in developing their remediation plans. We found the various ministry approaches used to identify their high-risk sites to be poorly documented. Documentation improvements are needed both to support the process used and to provide evidence that the process was consistently applied.

One ministry had 2,055 properties in its portfolio, and had identified 82 of these sites as potentially contaminated. The risk-based approach that the ministry had used in identifying these 82 sites was not documented. Based on our audit work and our discussions with the ministry, we were able to conclude that the risk-based approach had been appropriate. However, documented support to show how the ministry had identified its list of potentially contaminated sites was not available.

Decisions to classify a site as low risk were rarely documented, nor were the criteria or process used to make this low-risk determination. Documentation of this decision and the process used is important because once a low-risk determination is made, given government funding constraints, for the most part, no further assessment work is done on these sites. Ministries also have no formal plans to periodically review sites that have been classified as low risk to ensure that the low-risk classification remains valid.

Methods for classifying sites as high risk varied among the ministries. There was no overall review of the ministries' risk-based approaches by a central unit or ministry group to ensure that classifications were arrived at consistently across the government.

Remediation Strategies Inadequately Documented

We noted that one ministry had in several cases chosen not to follow the recommendations of consultants it had hired to help assess its contaminated sites. While we acknowledge that the final choice of remediation strategy does and should rest with the ministry, we would expect such decisions to be documented, particularly when inconsistent with recommendations made by individuals hired specifically for their expertise in this area. The ministry either altered the consultants' suggested remediation plans or chose remediation strategies that the consultants had reviewed but rejected. For example, a consultant assessed several remediation options for a particular site and recommended an "excavation and disposal" option over other available and assessed options, such as "monitored natural attenuation" (that is, allowing natural processes to reduce the contamination, and monitoring the progress of this reduction over time). The ministry chose to implement the "monitored natural attenuation" alternative without documenting its rationale.

We discussed this issue with ministry management and were informed that the ministry had been shifting away from traditional dig-and-dump methods of addressing site contamination. Such methods were falling out of favour because at times this approach may simply move contamination from one location to another. Monitoring and controlling contamination on-site, with the goal of managing its reduction over time, is increasingly seen as the most cost-effective and viable remediation strategy for many sites. We engaged our own environmental expert to review the ministry's strategy. Based on this review and our own work, we concluded that the ministry's strategy was reasonable. However, the ministry's rationale for choosing this strategy should have been documented, as should any rationale used to support government remediation decisions.

Valuation Approach Inconsistently Applied

One ministry updated some of its previous liability estimates for its contaminated sites by applying an inflation adjustment of 8% per year to its original estimates. We were informed that the 8% rate was based on the three-year average increase (using the 2008, 2009 and 2010 calendar years) in prices for steel and concrete, which are the main component of this ministry's remediation projects. Although the original source documentation supporting these price increases was not maintained by the ministry and was not available, we obtained corroborating evidence supporting this rate and concluded that the ministry's use of the 8% rate was reasonable. However, the ministry applied this 8% annual inflation adjustment to only some of its sites, and did not document its justification for applying this rate only to some sites and not to others. Accordingly, we recommended that the ministry apply its chosen methodology consistently.

The ministry accepted our recommendation, and an additional $18 million ($24 million for the inflation adjustment, offset by $6 million in other error adjustments) was recorded after applying the inflation adjustment factor to the ministry's remaining sites. Better documentation by the ministry of its decision-making processes might have prevented this error.

RECOMMENDATION 6

To ensure that future decisions and cost estimates for remediating contaminated sites are based on the best information available, and to prevent errors and inconsistencies, the stakeholder ministries should:

- improve the supporting documentation they maintain regarding contaminated site liability estimates. Documentation should include explanations of how the contaminated site was identified, what risk-based approaches were used to identify high-risk sites, what remediation strategies were selected, how they were chosen, and what assumptions were used in determining and estimating liabilities; and
- periodically review sites that have been classified as low risk to ensure that this classification remains valid.

MINISTRIES' RESPONSE

Lessons learned through implementation of the new accounting standard will benefit ministries through enhanced documentation on risk assessments and cost estimates. Ministries will continue to refine and improve upon the quality of their documentation in future years. The centralized oversight body, once established, will provide ministries with further direction in this regard consistent with the Auditor General's recommendations.

Ministries will regularly review information related to contaminated sites, which will serve as input to both risk management over contaminated sites and to the Public Accounts process.

4.3.3 Process Needed for Updating Liability Estimates

The government currently has no policies or processes requiring ministries to monitor their contaminated sites and incorporate newly available information into their site assessments and liability valuations. Without such a monitoring process, the valuations reflected in the government's contaminated sites liability could fall out of date, and no longer accurately reflect the government's best estimate of its obligations related to a particular site.

During our audit work, we noted that a number of the estimates for contaminated sites' liability were based on environmental site assessments done many years ago. One had been prepared 21 years previously, in 1994. Although that environmental site assessment's impact on the overall contaminated sites liability estimate was not material, and we determined that the liability estimate for the site was appropriately updated to reflect current costs, it highlights the need for all environmental site assessments to be reviewed periodically to ensure that they continue to reflect site events, changes in the site's condition, current remediation costs or newly available remediation technologies.

The government should review its estimated contaminated sites liability annually. However, this does not mean that environmental site assessments for all of its contaminated sites need to be updated every year. A formal reassessment would typically be called for only when a significant change has occurred in technology, legislation, inflation or contamination information related to a particular site. Ministries' annual review work should accordingly focus on whether updated environmental site assessments are required for particular sites based on new information, and whether such new information indicates that the government's liability needs revision. We will need to assess these reviews on an annual basis as part of our audit of the Province's consolidated financial statements.

Based on the audit work we performed, we concluded that the government's estimated contaminated sites liability as of March 31, 2015 was reasonable. Ministries had been able, for the most part, to estimate their individual liabilities based on site information that was already available to them as program custodians. However, adjustments to previous valuations were made in several cases, with one ministry increasing earlier liability estimates by means of an inflation adjustment, and another ministry developing a standard unit cost model that it then applied to its liability estimates from previous years.

Moving forward, the government will need to ensure that monitoring processes are in place to identify and incorporate relevant new information when updating and re-estimating its contaminated sites liability. Specifically, ministries will need to make ongoing adjustments to their liability estimates to reflect significant technology changes; new remediation strategies; and changes in economic assumptions, such as inflation rates or the length of time estimated to remediate the site; actual expenditures; legislative standards; and other unforeseen events.

RECOMMENDATION 7

To ensure that the contaminated sites liability estimates reflect newly available relevant information:

- the stakeholder ministries should implement a process for annually reviewing all of their liability estimates. This process should include a review of remediation costs incurred to date and an assessment of those costs in relation to the recorded liability to determine if the liability estimate needs to be updated; and
- once established, the central unit or ministry group should provide the ministries with guidance for carrying out this annual exercise, and carefully monitor ministry liability submissions to ensure that adjustments are made, where required, before their inclusion in the Province's consolidated financial statements.

MINISTRIES' RESPONSE

The government's initiatives to enhance prioritization, risk management and reporting for contaminated sites will include a requirement for ministries to regularly update site information, both to identify additional risks and changes impacting management decisions related to contaminated sites and to ensure complete and reasonable liability estimates are reported in the Province's Public Accounts.

As part of these efforts, consideration will be given by the centralized oversight body and the ministries to the appropriate triggers and/or timelines to initiate more in-depth site assessments or liability estimates such as changes in technology, site conditions, or changes in environmental standards.

5.0 Other Matter

5.1 Financial Security

The Province's liability for contaminated sites includes liabilities for a number of contaminated mines and private waste facilities (e.g., landfill sites) because operators failed to meet their obligations and have insufficient financial resources to remediate the contamination on their sites. In these cases, the site has reverted to the care and control of the Province.

Mining companies and private waste facility site operators are legally responsible for remediating their sites. The Ministry of Northern Development and Mines and the Ministry of the Environment and Climate Change each maintain a fund requiring that those companies and operators provide the Province with financial security, such as a deposit of funds or a letter of credit. This financial security provides assurance to the government that these operators can cover the costs necessary to remediate their sites to established environmental standards when the mine or private waste facility closes. With regard to mines, mine operators are required under the *Mining Act* to return their sites to the standard defined in their approved closure plan, regardless of the amount of financial security they have provided to the Ministry of Northern Development and Mines.

The Ministry of Northern Development and Mines and the Ministry of the Environment and Climate Change held $22 million and $31 million in cash financial security, respectively, and $1.6 billion and $408 million in non-cash financial security, respectively, as of March 31, 2015. The cash financial security amounts are held on deposit with the government and are recorded as liabilities in the Province's consolidated financial statements in the Ministry of Northern Development and Mines' Mine Reclamation Fund and the Ministry of the Environment and Climate Change's Financial Assurance Trust Fund, respectively.

This financial security program is important; without it, taxpayers might ultimately have to bear the cost of remediating these sites. A poorly run program could also result in taxpayers having to fund any mine or private waste facility closing costs that are additional to the security amounts provided to the government.

Our Mines and Minerals audit (see **Section 3.11** of this year's *Annual Report*) noted weaknesses in the financial security program for mine operators. The key weakness identified was inadequate financial security being obtained for future mine remediation costs. Because of this weakness, the province may have a significant contingent liability for shortfalls in financial security available to the government related to Ontario mining operations closures. The amount of this contingent liability cannot be estimated. A liability has not been recorded in the Province's consolidated financial statements for these possible shortfalls because mine operators are legally responsible for their sites. A liability does not need to be recorded until operators default on their closure plan obligations, or it is clear they will default, and a shortfall in the financial security provided is identified. The likelihood of these future events occurring cannot be determined at this time.

The Mines and Minerals audit report contains recommendations for strengthening controls over financial security for mines. We encourage the government to implement those recommendations to minimize its risk of being left responsible for environmental liabilities associated with the reclamation of mining sites.

Appendix 1—Nature and Source of Contamination by Site Usage

Source of data: 2013/14 Public Accounts of Canada, modified by the Office of the Auditor General of Ontario

Site Usage Category	Nature of Contamination	Source(s) of Contamination
Former Mineral Extraction	Heavy metals, petroleum hydrocarbons, etc.	Mining activities; activities associated with mine operations, such as fuel storage, fuel handling, waste deposits, etc. Many sites have multiple contamination sources.
Office/Commercial/Industrial	Metals, petroleum hydrocarbons, polyaromatic hydrocarbons, BTEX, etc.	Activities associated with the operations of an office, commercial or industrial facility. Contamination can arise from fuel storage/handling, waste deposits, metal-based paint, etc. Many sites have multiple contamination sources.
Miscellaneous	Metals, petroleum hydrocarbons, polyaromatic hydrocarbons, other organic contaminants, etc.	Many possible contamination sources, such as pesticides, herbicides, fertilizers or PCBs.
Landfills/Waste	Metals, petroleum hydrocarbons, polyaromatic hydrocarbons, BTEX, other organic contaminants, etc.	Contamination associated with the operations of the landfill/waste site, or leaching from materials deposited in it.
Air and Land Transportation	Metals, petroleum hydrocarbons, polyaromatic hydrocarbons, BTEX, other organic contaminants, etc.	Activities associated with the operations of airports, railways, fuel stations, roads, etc. Contamination arises from fuel storage/handling, waste deposits, etc. Sites often have multiple contamination sources.
Fuel Storage	Petroleum hydrocarbons, polyaromatic hydrocarbons, BTEX, etc.	Activities associated with fuel storage and handling, such as maintaining aboveground storage tanks, underground storage tanks, fuel-handling areas, pipelines, fuel stations, etc.
Parks and Protected Areas	Metals, petroleum hydrocarbons, polyaromatic hydrocarbons, PCBs, other organic contaminants, etc.	Activities related to the operations and maintenance of parks and protected areas. Contamination arises from fuel storage/handling, waste deposits, metal-based paint, etc. Sites often have multiple contamination sources.

Appendix 2—Examples of Contaminated Sites

Prepared by the Office of the Auditor General of Ontario

Site Usage Category	Example of Contaminated Site from This Category
Former Mineral Extraction	A former gold mine that operated for nearly a century (from 1867 to 1961). Its mining and smelting operations produced arsenical pesticides, cobalt, silver, nickel and stellite. The operation, combined with the lack of stringent environmental regulations during the time the mine operated, resulted in significant contamination of the 202-hectare site. An arsenic treatment plant has been located at the site to filter the area's contaminated groundwater before discharging it into a nearby river.
Office/Commercial/ Industrial	A manufacturing and processing facility that involved the use of Trichloroethylene (TCE) as a metal degreaser. A volatile organic compound and a known human carcinogen, the TCE contaminated both indoor air at the site and the surrounding groundwater. A groundwater extraction system is now used to treat the groundwater prior to it being discharged into the storm sewer, and there are ongoing operational and monitoring activities associated with this system.
Miscellaneous	A reef, identified as one of 43 "Areas of Concern" in the Great Lakes Water Quality Agreement between Canada and the United States, contains sediments that include coal tar containing very high concentrations of polycyclic aromatic hydrocarbons (PAHs). Many organisms, including humans, are exposed to this coal tar. An engineered containment facility is to be built to receive and isolate the contaminated sediments. The contaminated sediments from the reef will be dredged and safely housed in this facility.
Landfills/Waste	A hazardous waste facility operated in an industrial park in the late 1970s. Poor waste management practices resulted in oil and PCB contamination of the area's fractured bedrock and its groundwater. The local water supply was threatened, and the MOECC funded a pipeline to provide the town's residents with safe drinking water. The contamination is being contained through the use of an existing pump and treatment system. The groundwater is continuously monitored to confirm the PCB contamination is adequately confined and controlled.
Air and Land Transportation	Buried asphalt exceeding environmental standards for heavy oils and metals was found in sand and gravel fills near a highway. Additional asphalt and concrete dumping was identified at ground level. The remediation strategy is to excavate and dispose of the fills in a waste disposal site capable of accepting and handling contaminated material.
Fuel Storage	An underground fuel-oil tank was discovered to have been leaking, with the contamination discharging into a nearby river. The fuel-oil seep is lethal to fish and invertebrates and is of significant risk to fathead minnows. A barrier wall and groundwater collection system are to be installed to prevent the contamination from flowing into the river.
Parks and Protected Areas	Underground septic tanks are leaking into a lake, with a potential risk of contamination from PHCs, BTEX and polyaromatic hydrocarbons.

Appendix 3—Glossary of Terms

Prepared by the Office of the Auditor General of Ontario

Abandoned mine—Any private or Crown-owned mine that was no longer in operation when certain provisions of the *Mining Act* were enacted in 1991.

BTEX—Acronym that stands for benzene, toluene, ethylbenzene and xylenes. These compounds are some of the volatile organic compounds (VOCs) found in petroleum derivatives such as petrol (gasoline).

Contaminant—Any solid, liquid, gas, odour, heat, sound, vibration, radiation or combination thereof resulting directly or indirectly from human activities that causes or may cause an adverse effect on human health or safety or the environment.

Contaminated site—A site that has contaminants occurring at concentrations:

a) above background (normally occurring) levels and pose or are likely to pose an immediate or long-term hazard to human health or the environment, or

b) above levels specified in policies and regulations.

Contamination—The introduction into soil, air or water of a chemical, organic or radioactive material or live organism that will have an undesirable or harmful effect on public health and safety or the environment.

Contingent liability note disclosure—A note added to financial statements to disclose any uncertain liability that exists at the date of the financial statements when:

a) a future event confirming the liability is likely to occur,
  - but the amount of the liability cannot be reasonably estimated; or
  - an amount has been recorded, but the entity is exposed to a liability that is greater than the amount recorded in the financial statements; or

b) it cannot be determined whether such a future confirming event will occur.

Discount rate—The interest rate used in computing present value.

Environmental Protection Act—The main Ontario statute regarding pollution control. Contains a number of general provisions that can be used to protect the environment against contamination.

Environmental site assessment—A systematic due diligence process that includes studies, services and investigations to plan, manage and direct the actions required to assess, decommission, and/or clean up a contaminated site.

Environmental standard—Any guideline, objective, criteria or other kind of limits placed on the amount of contamination that can be present.

Financial assurance—A form of security that the government requires from the owners and/or operators of private waste facilities (*e.g.*, landfill sites) or mines to cover the projected costs associated with returning the site to an agreed-upon condition and subsequently monitoring the site. The security may be in the form of cash, an irrevocable line of credit or a performance bond.

Forfeited site—When a corporation dissolves, any land that it still holds and has not disposed of is forfeited to the province. Types of forfeited property range from one-square-foot condominium property reserves to roads, apartment buildings, land and contaminated sites. A forfeited site is not necessarily contaminated, but if it is, the government must assume responsibility for the site's remediation, since the corporation that originally owned it has been dissolved.

Fractured bedrock—Separation in a geologic formation, such as a joint or a fault that divides rock into two or more pieces.

Heavy metal—A metal of relatively high density or of high relative atomic weight.

Inflation—A sustained increase in the general level of prices for goods and services. Measured as an annual percentage increase, the inflation rate can be based on items such as historical trends in the Consumer Price Index or fluctuations in commodity prices that affect construction costs.

Material—An amount above which financial information becomes relevant to a user's decision-making needs. In the context of this report, materiality is relative to the size and particular circumstances of the Ontario government.

Mitigate—In the context of this report, to manage health and environmental concerns associated with contaminants or pollutants by activities aimed at moderating a quality or condition in force or intensity or alleviating their effects. Such activities might include, for example, monitoring a contaminated site, posting warnings, restricting access to the site, changing land use patterns at or around the site, or collecting and treating contaminated water.

Monitoring—Observing changes in a site over time—for example, by periodically measuring contaminant levels.

Organic contaminant—A carbon-based chemical, such as a solvent or a pesticide, that can get into the water through runoff from cropland.

Pathway—A route or means by which a receptor can be exposed to or affected by a contaminant.

PCBs—Commonly known as chlorobiphenyls, PCBs are synthesized industrial chemicals used in a number of commercial operations since their introduction in 1929.

Petroleum hydrocarbons—The primary constituents in oil, gasoline, diesel, and a variety of solvents and penetrating oils.

Physical hazard—A condition or situation that can cause physical harm or intense stress to the human body. Physical hazards can involve both natural and human-made elements—for example, open pits or buildings susceptible to collapse, respectively.

Pollutant linkage—The linked combination of a source (that is, a contaminant or a source of a contaminant), a receptor, and a pathway, all present together.

Polyaromatic hydrocarbons—Also known as polycyclic aromatic hydrocarbons, these are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat.

Present value—The amount that a future sum of money or stream of cash flows is worth today, given a specified rate of return or discount rate. For example, if a person invests $1,000 in a one-year GIC with a 5% rate of return, at the end of 12 months, the $1,000 will have grown to $1,050. In accounting terms, $1,000 is the present value of $1,050, given that rate of return.

Receptor—A person or an asset that could be adversely affected by a contaminant. Receptors can include communities, ecological systems, properties, or bodies of water.

Remediation—Improving a contaminated site to prevent, minimize or mitigate damage to human health or the environment. Involves developing and applying a planned approach that removes, destroys, contains or otherwise reduces the availability of contaminants to receptors of concern.

Remediation strategy—The specific approach chosen for remediation of a particular contaminated site. Such strategies can include (but are not limited to) the following:

a) a full-scale "dig and dump"—contamination is dug out and dumped elsewhere;

b) risk management measures (RMMs)—selecting and implementing a risk-control strategy, followed by ongoing monitoring and evaluating the effectiveness of that strategy. RMMs may include direct remedial actions or other strategies that reduce the probability, intensity, frequency or duration of the exposure to contamination. Other strategies may include institutional controls (such as zoning designation or land use restrictions) and the use of landfill caps to form a barrier between the contaminated media and the surface to limit the migration of site contents.

c) any combination of the above.

Risk-based approach—An approach to categorizing contaminated sites based on a detailed evaluation of hazard and exposure potential at each site.

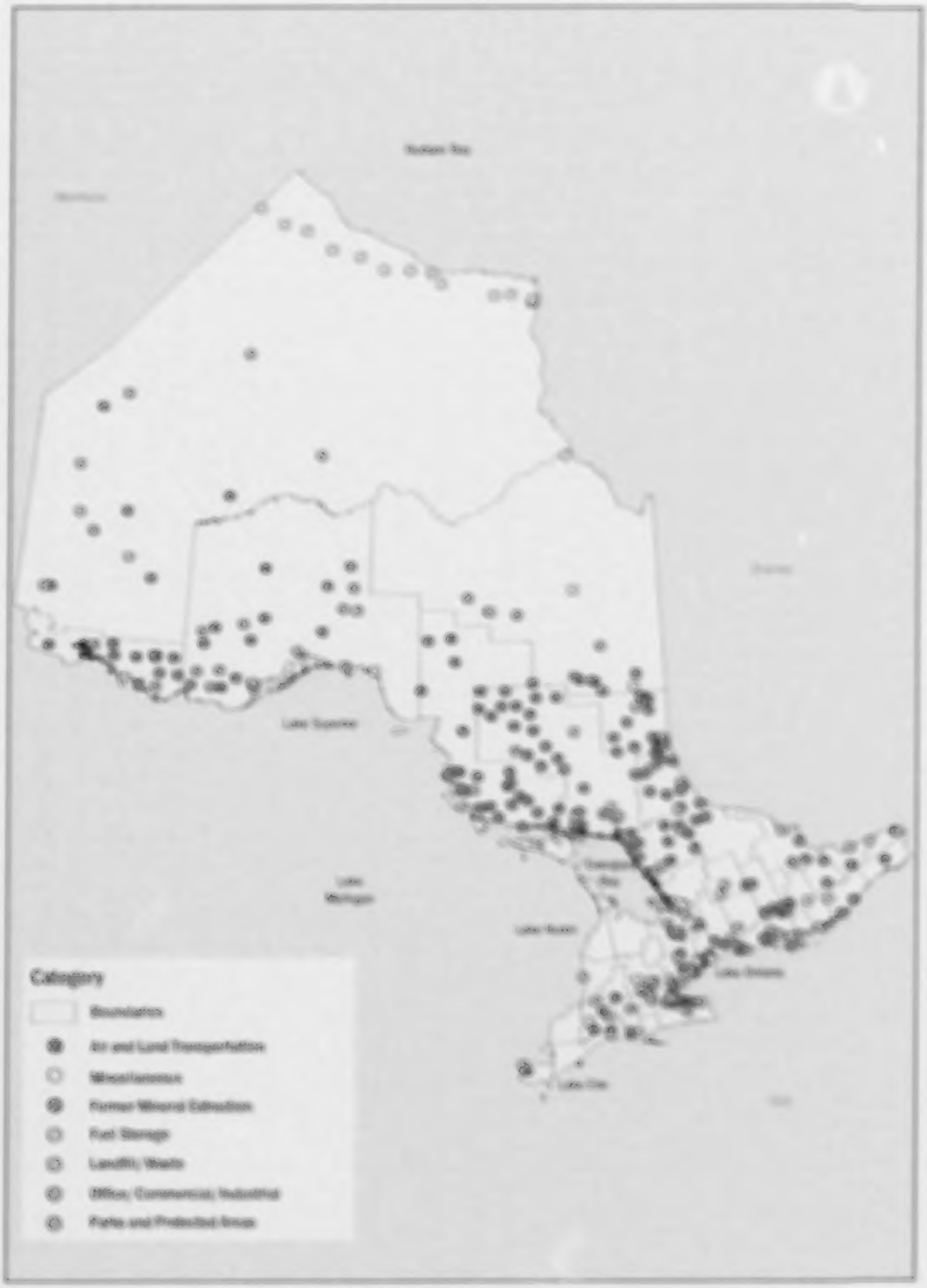
Stellite—A high-strength cobalt-chromium-tungsten alloy.

Tangible capital asset—A non-financial asset that has physical substance, such as a building, dam or highway.

Volatile Organic Compounds (VOCs)—VOCs are organic chemical compounds whose composition makes it possible for them to evaporate under normal indoor atmospheric conditions.

Appendix 4—Location of Contaminated Sites in Ontario

Source: Data provided by the ministries and government agencies with contaminated sites.


Hudson Bay
Manitoba
Quebec
Lake Superior
Lake Michigan
Georgian Bay
Lake Huron
Lake Ontario
Lake Erie
USA
Category
Boundaries
Air and Land Transportation
Miscellaneous
Former Mineral Extraction
Fuel Storage
Landfill; Waste
Office; Commercial; Industrial
Parks and Protected Areas

Appendix 5—10 Contaminated Sites with the Largest Estimated Liability

Prepared by the Office of the Auditor General of Ontario based on information from ministries and government agencies with contaminated sites

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Property Name: Steep Rock Mine site

Responsible for Remediation: Ministry of Natural Resources and Forestry

Location: Atikokan

Area:* 5,280 hectares

Contamination Category: Former Mineral Extraction

Contaminants:* Metals, arsenic, sulphate

Status: Under assessment. The site is being actively monitored and assessed for environmental contamination, and unstable materials and structures found on site are being secured. Studies of the state of the soil, vegetation and water are also being conducted to mitigate public health, safety and environmental concerns.

Property Name: Deloro site

Responsible for Remediation: Ministry of the Environment and Climate Change

Location: Municipality of Marmora and Lake, Hastings County

Area:* 202 hectares

Contamination Category: Former Mineral Extraction

Contaminants:* Arsenic, cobalt, copper, nickel, low-level radioactive waste and other materials

Status: Under remediation. The ongoing remediation has contained over 90% of the hazardous material in the former industrial and mine area of the site. More work is being done to contain the contaminated sediment in the Young's Creek area of the site.

Property Name: Kam Kotia

Responsible for Remediation: Ministry of Northern Development and Mines

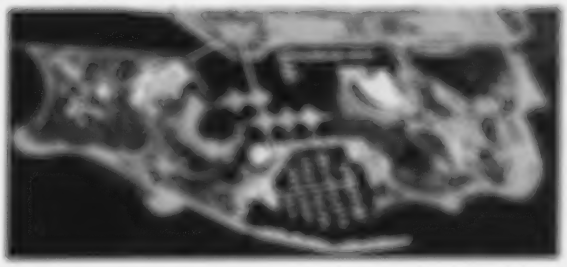
Location: Robb Township

Area:* 500 hectares

Contamination Category: Former Mineral Extraction

Contaminants:* Acid-generating tailings, arsenic, copper, zinc, iron, manganese, aluminum

Status: Under remediation. The tailings on site have been collected and contained within a new tailings management facility with ongoing treatment of the contamination. Public access to the site is restricted.



Property Name: Ontario Place

Responsible for Remediation: Ontario Place Corporation

Location: Toronto

Area:[1] 38 hectares

Contamination Category: Miscellaneous

Contaminants:[1] Metals, polycyclic aromatic hydrocarbons (PAHs)

Status: Remediation scheduled. The soil contamination is a result of the imported fill that was used to build the original site. Technical studies have shown that the low levels of these contaminants are only a risk if disturbed (e.g., through construction activities). As construction proceeds, the site and soil are being monitored regularly to mitigate risk to staff and the public.

Property Name: Randle Reef

Responsible for Remediation: Ministry of the Environment and Climate Change (shared responsibility with multiple partners)

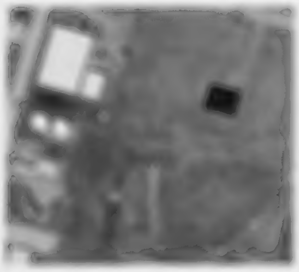
Location: South shore of Hamilton Harbour (vicinity of Piers 14, 15 and 16), Great Lakes

Area:[1] 2,150 hectares

Contamination Category: Miscellaneous

Contaminants:[1] Polycyclic aromatic hydrocarbons (PAH)

Status: Remediation scheduled. The contaminated sediments exist offshore under several metres of water. Marine vessel navigation is restricted in the area to minimize sediment disturbance, and public access from shore is also restricted. The Ministry's sport fish consumption guide advises anglers on safe consumption amounts for each species within Hamilton Harbour to further mitigate any risk to the public.



Property Name: Smithville PCB site

Responsible for Remediation: Ministry of the Environment and Climate Change

Location: Smithville

Area:[1] 5.7 hectares

Contamination Category: Landfills; Waste

Contaminants:[1] Polychlorinated biphenyls (PCBs)

Status: Under remediation. Contamination is contained within a bedrock aquifer which is no longer used for municipal water supply. There are monitoring wells between the contaminated zone and the domestic wells outside the contaminated zone to minimize risk to the public.

Property Name: Crosswise Lake Tailings

Responsible for Remediation: Ministry of Northern Development and Mines

Location: Coleman

Area: [illegible] hectares

Contamination Category: Former Mineral Extraction

Contaminants: Arsenic, copper, lead, aluminum, iron

Status: Under assessment. Public Health Notices have been posted at the site, and the Ministry of the Environment and Climate Change has published the soil sampling results to inform and help protect residents.

Property Name: Former Northstar Property & The Bishop Street Community

Responsible for Remediation: Ministry of the Environment and Climate Change

Location: Cambridge

Area: [illegible] hectares

Contamination Category: Office/Commercial/Industrial

Contaminants: Trichloroethylene (TCE), hexavalent chromium

Status: Under assessment. The Ministry continues to oversee the operation, monitoring and maintenance of environmental systems to ensure the continued protection of human health and the natural environment.

Property Name: Regent Park Redevelopment Project – Phase 3

Responsible for Remediation: Ministry of Municipal Affairs and Housing

Location: Toronto

Area: [illegible] hectares

Contamination Category: Office/Commercial/Industrial

Contaminants: Polycyclic aromatic hydrocarbons (PAHs), metals, polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs)

Status: Under remediation. The potential contamination is due to the land uses that were in place prior to the development of Regent Park in the 1950s. Soil testing indicates that contaminants are below ground, and will not pose health and safety risks to residents of these communities unless disturbed through construction activities. All buildings in Regent Park are to be demolished as part of the redevelopment, and all residents are relocated prior to redevelopment and remediation activities to prevent exposure to contaminants.

Property Name: Regent Park Redevelopment Project – Phase 4 and 5

Responsible for Remediation: Ministry of Municipal Affairs and Housing

Location: Toronto

Area:[1] 6.4 hectares

Contamination Category: Office/Commercial/Industrial

Contaminants:[2] Potential for polycyclic aromatic hydrocarbons (PAHs), metals, polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs)

Status: Remediation scheduled. The potential contamination is due to the land uses that were in place prior to the development of Regent Park in the 1950s. Soil testing indicates that contaminants are below ground, and will not pose health and safety risks to residents of these communities unless disturbed through construction activities. All buildings in Regent Park are to be demolished as part of the redevelopment, and all residents are relocated prior to redevelopment and remediation activities to prevent exposure to contaminants.

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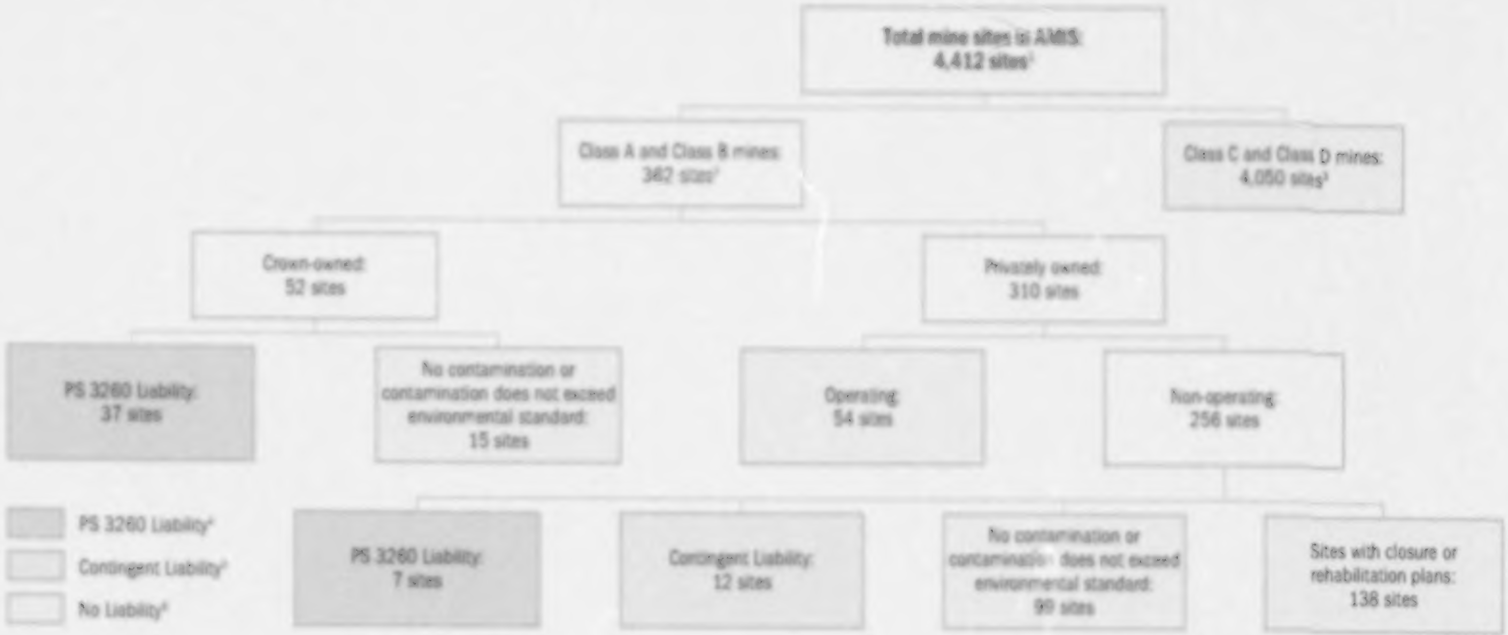
[1] Area refers to the total area of the site and not the contaminated portion of the site.

[2] Contaminant information gathered from the Environmental Site Assessments.

Appendix 6—Liability Status of Mines in the Abandoned Mines Information System (AMIS)

Prepared by the Office of the Auditor General of Ontario


Total mine sites in AMIS: 4,412 sites[1]
Class A and Class B mines: 362 sites[2]
Class C and Class D mines: 4,050 sites[3]
Crown-owned: 52 sites
Privately owned: 310 sites
PS 3260 Liability: 37 sites
No contamination or contamination does not exceed environmental standard: 15 sites
Operating: 54 sites
Non-operating: 256 sites
PS 3260 Liability: 7 sites
Contingent Liability: 12 sites
No contamination or contamination does not exceed environmental standard: 99 sites
Sites with closure or rehabilitation plans: 138 sites
PS 3260 Liability[4]
Contingent Liability[5]
No Liability[6]

1. AMIS includes all mines not in operation when certain amendments to the *Mining Act* came into force in 1991 and any mine that has ceased operations—even temporarily—since 1991. Even though the system name implies that all of these mines are abandoned, many of these mines are still owned by and are the responsibility of private-sector operators, and some mines have even started operating again. Others have been truly abandoned, with ownership and responsibility for them having reverted back to the Crown. Physical hazards may be present at all mines.
2. Class A mines have been subject to intensive mineral processing, typically with mine tailings in excess of 1 million tonnes. Class B mines have also been subject to mineral processing, but on a smaller scale, with mine tailings typically less than 1 million tonnes. Since tailings are present at the site, only Class A and B mines have potential for contamination that may meet the criteria for liability inclusion under PS 3260.
3. Class C and D mines are smaller than Class A and B mines and have no tailings at the site. Class C sites may have some hazardous surface openings, waste rock piles or dilapidated structures at the site. Class D sites typically have surface features only, such as trenches, test pits or stripping.
4. Thirty-seven of the 52 Crown-owned Class A and B mines in AMIS are recorded under PS 3260, *Liability for Contaminated Sites*. In addition, seven privately owned mines are recorded under PS 3260, *Liability for Contaminated Sites* because the owners are in financial difficulty, and the government believes that it will probably have to accept responsibility for these sites and remediate them.
5. Twelve sites have been disclosed as a government contingent liability because there is a risk that the government may become responsible for them, but the likelihood of this occurring is not determinable.
6. Sites that do not have contamination or sites whose contamination does not exceed environmental standards are not recorded as a liability under PS 3260. In this group are 15 of the Crown-owned Class A and B mines, the 54 privately owned operating sites, 99 non-operating private sites, 138 sites with a closure plan with financial security or a rehabilitation plan in place (not a liability to the province unless the owner defaults on the closure plan and the province's financial security is insufficient) and the 4,050 Class C and D mines.

Chapter 3

Ministry of Northern Development and Mines

Section 3.11 Mines and Minerals Program

1.0 Background

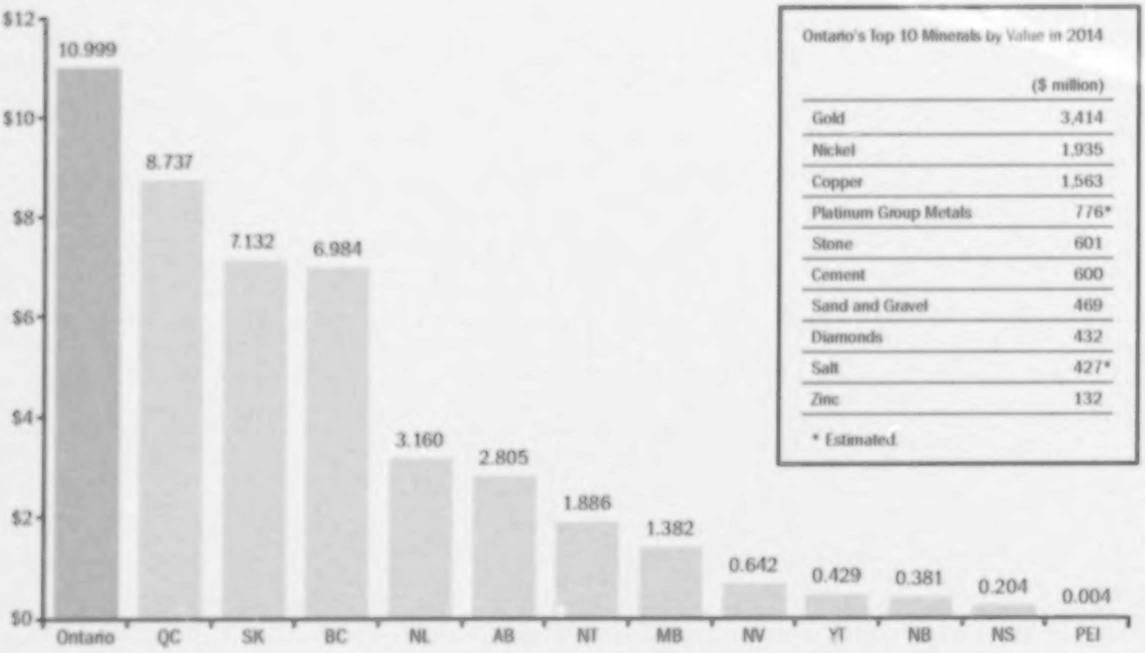
1.1 Overview

Ontario is the largest mineral producer in Canada, accounting for 24.6% of the total share of Canadian mineral production. Its mineral production was valued at almost $11.0 billion in 2014. **Figure 1** shows Ontario's mineral production in comparison to other Canadian provinces and territories, and its top 10 minerals by production value.

The Ministry of Northern Development and Mines (Ministry) is responsible for overseeing the province's minerals sector, in accordance with the *Mining Act* (Act). The Act's rules and regulations

Figure 1: Value of Canada's Mineral Production, 2014 ($ billion)

Source of data: Ministry of Northern Development and Mines



Ontario's Top 10 Minerals by Value in 2014

	($ million)
Gold	3,414
Nickel	1,935
Copper	1,563
Platinum Group Metals	776*
Stone	601
Cement	600
Sand and Gravel	469
Diamonds	432
Salt	427*
Zinc	132

* Estimated

are intended to encourage the development of Ontario's mineral resources. Mineral development occurs in five stages:

- exploration;
- evaluation;
- development;
- production; and
- closure and monitoring.

Appendix 1 provides an overview of these stages and the activities in each stage. Under the Act, these activities must be conducted in a way that recognizes existing Aboriginal and treaty rights, and minimizes adverse effects on public health and safety and on the environment.

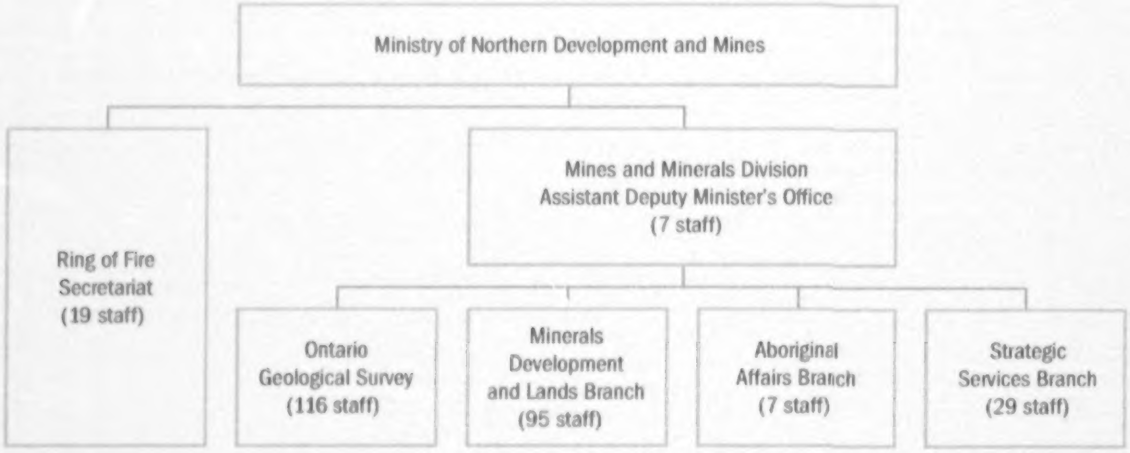
The Ministry's specific responsibilities are to:

- collect and disseminate geosciences (earth science) information to attract investors to the mineral sector and guide their investments, and to support land-use planning;
- encourage and facilitate Aboriginal participation in Ontario's economy in a way that recognizes and is respectful of Aboriginal rights and culture;
- encourage, promote and facilitate sustained economic benefits from Ontario's mineral resources;
- ensure that mining activity is performed responsibly and sustainably, with minimal disruption to the environment;
- inspect mines for compliance with the Act's rules and regulations, and oversee mine rehabilitation (including collecting and holding funds to ensure private mine owners rehabilitate their mine sites) and abandoned mines; and
- oversee and ensure equitable public access to Crown lands so that the mineral resources in them can be explored and developed if possible.

These responsibilities are carried out by the Ministry's Mines and Minerals Division, and its Ring of Fire Secretariat, responsible to oversee the development of the Ring of Fire mineral deposit in Northern Ontario. In 2014/15, the Ministry had over 270 full-time employees and spent $41 million. See **Figure 2** for details on the Ministry's organizational structure.

Figure 2: Ministry of Northern Development and Mines Organizational Structure, 2014/2015

Prepared by the Office of the Auditor General of Ontario based on information provided by the Ministry of Northern Development and Mines


Ministry of Northern Development and Mines
Ring of Fire Secretariat (19 staff)
Mines and Minerals Division Assistant Deputy Minister's Office (7 staff)
Ontario Geological Survey (116 staff)
Minerals Development and Lands Branch (95 staff)
Aboriginal Affairs Branch (7 staff)
Strategic Services Branch (29 staff)

1.2 What Happens Before a Mine Opens

In Ontario, approximately 70 million hectares of Crown lands are available to prospectors and mining companies to explore, evaluate and develop to produce minerals.

The first step in exploration is for licensed prospectors to stake a mining claim. This means the prospectors mark an area of land on which they want to claim the exclusive right to explore for minerals. Marking the land physically involves planting posts around the borders, and blazing trees and cutting underbrush along the claim boundaries. The Ministry also allows prospectors to "map stake" claims on lands in southern Ontario that have been subdivided into territories or townships—that is, in an application form, indicate the outlines of the claim on a map.

A claim can range in size from 16 hectares (a one-unit claim) to 256 hectares (a 16-unit claim).

In the last few years, metal and mineral prices have dropped significantly because of lower global demand. This has had a direct impact on mining activities in the province. As shown in **Figure 3**, exploration spending peaked in 2011 but has declined dramatically since. The number of active claim units has also declined since 2011.

It can take 10 years or longer from early exploration for a mine to open, and in fact, most exploration work never moves to the production stage. Given this, mining companies are continuously exploring land looking for mining opportunities.

To promote the province's mineral potential and attract exploration investment, the Ministry:

- provides industry with access to an online warehouse of geological data, including over 18,000 Ontario Geological Survey maps, reports and datasets, and over 80,000 exploration work reports submitted by the private sector;
- monitors the investment climate, and analyzes industry health and trends; and
- develops initiatives and policies to respond to those trends.

The Ministry also attends trade shows and conferences on mineral exploration and development to showcase Ontario's mineral potential and to promote investment in the province. As well, it relies on the Ministry of Economic Development, Employment and Infrastructure and the Ministry of Citizenship, Immigration and International Trade to promote the mining sector in Ontario on trade missions and media tours.

1.3 What Happens After a Mine Closes

Mining activities can have a significant impact on the surrounding environment. They can affect groundwater and surface water, aquatic life, soil, vegetation, wildlife and air quality. The changes mining makes to the environment can have serious implications for public safety and health. Therefore, under the *Mining Act*, all land affected by mining must be rehabilitated when mining ends.

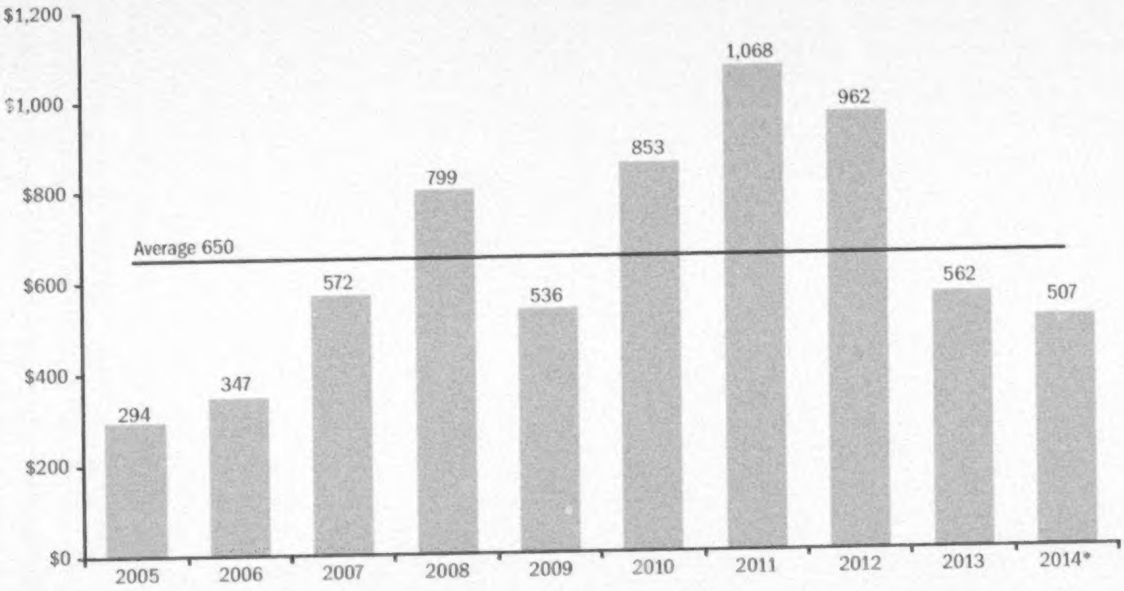
Before they can start building a mine, mining companies must prepare the mine's closure plan. This plan outlines how the affected land will be rehabilitated and how much rehabilitation will cost. Plans must be certified by company executives to ensure they meet the standards prescribed in one of the *Mining Act*'s regulations. This regulation also requires certifications from qualified professional engineers. The Ministry must review and accept the plans before development can begin. As well, the Ministry can inspect the company's exploration work and operations to ensure they remain in compliance with the filed plans.

To ensure that the company will be able to follow through with the plan, the Ministry obtains financial assurance or security from the mining company. This is an amount of money, equal to the estimated cost of the rehabilitation work, that is to be held by the Ministry to ensure adequate funds are available to carry out the rehabilitation of a mine if the company fails to do so. Alternatively,

Figure 3: Exploration Spending by Industry and Active Mining Claim Units in Ontario, 2005–2014

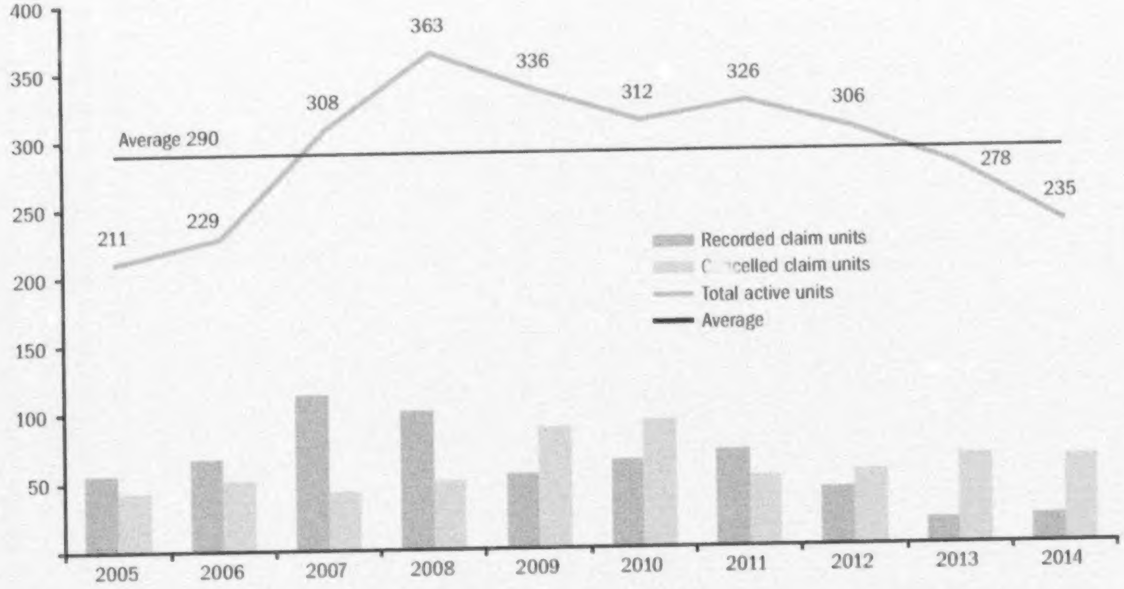
Source of data: Ministry of Northern Development and Mines

Exploration Spending by Industry ($ million)



* Based on preliminary data.

Active Mining Claim Units (000)



Note: Vertical dark bars on the left represent claim units recorded during the year; the light bars on the right represent claim units cancelled during the year.

companies that meet certain criteria (as described in **Figure 4**) can self-assure to meet the financial assurance obligations. This means that they do not need to submit funds in advance to the Ministry because the Ministry anticipates that the companies will have sufficient funds to rehabilitate the mines when needed.

As shown in **Figure 4**, as of August 2015, the Ministry had received 157 closure plans, with about $1 billion of associated financial security (cash, bonds, and letters of credit). As well, the *Mining Act* permitted companies that passed the Corporate Financial Test to self-assure 10 closure plans, estimated to cost $654 million, and allowed the pledge of assets for two closure plans.

1.4 Abandoned Mines

Prospecting and mining in Ontario dates back to the 1800s. The requirement for rehabilitating land after mining activities end came into effect in 1991 with an amendment to the *Mining Act*, and applied to all operating mines at the time. Therefore, many mines that had ceased operations before 1991 are not closed out in accordance with current legislation and standards. This has left mine hazards on the land that could now pose risks to public health and safety and the environment.

These hazards can be physical, such as shafts, trenches and buildings, or environmental, such as acid rock drainage, metal leaching and tailing dams (tailings are fine-grain material left over from the processing of mineral ores; tailings are held in place by earth-filled dams). Rehabilitation of these sites can range from just closing small mine shafts to rehabilitating major chemical contamination, which could cost millions of dollars.

All known existing mine sites that were not in operation in 1991 (when the requirement for rehabilitating land when mining activities cease came into effect) have been classified as abandoned mines by the Ministry. There are currently about 4,400 known abandoned mines in Ontario containing over 15,000 mine hazards known to the Ministry. **Figures 5** and **6** present an overview

Figure 4: Financial Assurances, August 2015

Source of data: Ministry of Northern Development and Mines

Form of Pledge	Description	# of Plans	Amount ($)
Letter of Credit	A document from a bank guaranteeing receipt of payment in full. Must be received from a bank named in Schedule 1 of the *Bank Act* or a bank acceptable to the Ministry.	90	853,691,658
Cash		52	18,052,309
Surety Bond	A bond of an insurer licensed under the *Insurance Act* to write surety and fidelity insurance.	15	132,022,661
Subtotal of more secure pledges		**157**	**1,003,766,628**
Corporate Financial Test	Companies that have a single A- rating (Standard & Poor's) or better are able to fully self-assure for the life of the mine. Companies with a BBB- rating will be able to fully self-assure for the first half of the life of the mine if this first half is at least four years. Companies with ratings lower than BBB- cannot self-assure.	10	654,183,803
Pledge of Assets	Collateral pledged by the company that the Ministry has the right to seize if the company defaults on obligation.	2	4,256,467
Subtotal of less secure pledges		**12**	**658,440,270**
Total		**169**	**1,662,206,898**

Note: The number of filed closure plans is 162. Some closure plans have more than one financial assurance instrument.

Figure 5: Mines in Ontario, August 2015

Prepared by the Office of the Auditor General of Ontario, based on information provided by the Ministry of Northern Development and Mines

	# of Mines		
Description	Private	Crown	Total
Developed Mines			
Mines currently in production	43	–	**43**
Mines not currently in production	78	–	**78**
Total	**121**	–	**121**
Closed-out Mines			
Mines in the process of closing out	11	–	**11**
Mines closed out, but under environmental monitoring	7	–	**7**
Mines completely closed out	4	–	**4**
Total	**22**	–	**22**
Abandoned Mines			
Abandoned mines with contamination meeting public-sector-accounting criteria for liability recognition[1]	19	37	**56**
Abandoned mines with contamination not meeting public-sector-accounting criteria for liability recognition[2]	291	15	**306**
Abandoned mines with physical hazards only	1,678	2,372	**4,050**
Subtotal	**1,988**	**2,424**	**4,412**
Abandoned mines being rehabilitated by other ministries[3]	–	3	**3**
Total	**1,988**	**2,427**	**4,415**

1. See Section 3.10 of this Annual Report for more details on the PSAB 3260 Liability for Contaminated Sites.
2. According to the Ministry of Northern Development and Mines, either the contamination on these sites does not exceed the environmental standard required for the reporting of a liability or these sites have mine closure plans to address the contamination.
3. Ministry of Natural Resources and Forestry – Steep Rock Mine and Adams Mine; Ministry of the Environment and Climate Change – Deloro Mine.

of all mines in Ontario and the associated hazards located on the abandoned mine sites.

These abandoned mines are either privately held or owned by the Crown. The Crown took ownership in cases where:

- the land was forfeited due to unpaid rent or taxes;
- the land was surrendered back to the Crown;
- the mining lease expired;
- the private owner died; or
- the mining company was dissolved.

The Ministry is responsible for the rehabilitation of hazards in abandoned mines owned by the Crown. It is also responsible for monitoring and enforcing the rehabilitation of privately owned abandoned mines and to ensure these mines do not revert back to the Crown without first being rehabilitated. In cases where the private owners have failed to address mine hazards that pose immediate and dangerous adverse effects on public health and safety and the environment, the Ministry has to take emergency measures to rehabilitate these hazards and then attempt to recover the money from the private owners.

1.5 Mining Revenue

Ontario's *Mining Tax Act* imposes a mining profit tax on mineral production. The tax is meant to compensate the province for the extraction and sale of non-renewable mineral resources from Crown and private land. All minerals mined in Ontario are subject to mining profit tax except for diamonds, which are subject to royalty payments under the *Mining*

Figure 6: Abandoned Mine Hazards in Ontario, August 2015

Source of data: Ministry of Northern Development and Mines

	# of Hazards Present at						
	Contaminated Sites Meeting Criteria for Liability Recognition		Contaminated Sites Not Meeting Criteria for Liability Recognition		Sites with Physical Hazards Only		
Type of Abandoned Mine Hazard	Crown	Private	Crown	Private	Crown	Private	Total
At or near the surface (e.g., shafts, open pits)	165	112	86	1,781	5,261	4,387	**11,792**
Structures (e.g., buildings, mills)	112	73	102	435	229	406	**1,357**
Underground (e.g., stopes*, lateral workings)	26	14	15	323	271	297	**946**
Waste (e.g., rock piles, tailings)	68	58	48	424	232	403	**1,233**
Unknown	1	0	2	19	8	21	**51**
Total	**372**	**257**	**253**	**2,982**	**6,001**	**5,514**	**15,379**

* Stopes are openings in the ground made in the process of extracting ore from a mine.

Act. All annual taxable profits over $500,000 are taxed at a rate of 10%.

A reduced rate of 5% applies to profits from operations that the Ministry has designated as remote (that is, there are at least 30 kilometres between the mine pit's mouth and the nearest road or railway used by the mine for transportation).

In most years, the mining profit tax accounts for 90% of total mining revenue.

The *Mining Act* outlines the rates to be charged for the use of Crown land, including rental fees on mining leases and licences, and mining land tax (formerly acreage tax) on privately owned land.

Mining revenue received from these various sources is presented in **Figure 7**. Over the last 20 years, from 1995 to 2014, mining revenue fluctuated considerably and dropped to its lowest point in 20 years in 2014 (to $18.6 million, from a high of $236.7 million in 2008). Mining revenue is impacted by fluctuations in the global demand and commodity prices for the minerals, and in the last few years, lower commodity prices and global demand have resulted in lower mining revenue for the province.

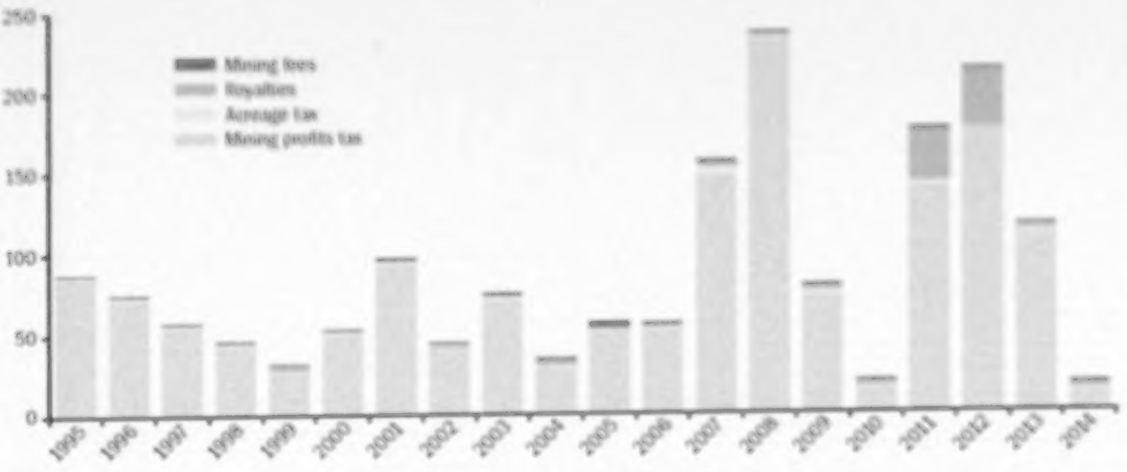
1.6 Ring of Fire

The Ring of Fire is a mineral-rich area located in Northern Ontario in the James Bay Lowlands, about 500 kilometres northeast of Thunder Bay. This is a remote area with no infrastructure linking the region to existing roads, rail or electricity. The area is approximately 5,000 square kilometres, with most mineral discoveries to date located within a 20-kilometre-long strip. See **Appendix 2** for the geographical location of the Ring of Fire.

Early exploration in the region in 2001 identified significant deposits of nickel, copper, zinc and platinum. However, it was the discovery of North America's first commercial quantities of chromite in 2008 that attracted more intense interest to the area. Chromite is a mineral used to make ferrochrome, an alloy that is essential in making stainless steel, which is in high demand worldwide. It is estimated that the chromite deposits hold at least 220 million tonnes, which would make it one of the richest deposits in the world. The chromite and nickel deposits alone in the region are estimated to have a potential value of $60 billion.

Figure 7: Ontario Mining Revenue, 1995–2014 ($ million)

Source of data: Ontario Public Accounts



1.6.1 Ring of Fire Secretariat

In 2010, the government established the Ring of Fire Secretariat to work and consult with Aboriginal Peoples, northern Ontarians and the mining community to encourage the sustainable development of the Ring of Fire. The Secretariat has 19 full-time staff working in offices in Sudbury, Thunder Bay and Toronto. Since it was established in 2010, the Secretariat has incurred over $13.2 million in operating expenditures. It has also distributed $15.8 million in transfer payments to Aboriginal communities for capacity building (for example, operational support, and education and training initiatives to develop their ability to participate in the mining sector) and other funding support. This other support includes funding a local liaison position on the reserves, as well as funding the negotiation of the Regional Framework agreement between the province and the nine Matawa First Nations impacted by resource development in the area. This Regional Framework agreement outlines how the province and these nine First Nations communities are to work together on shared priorities, including long-term environmental monitoring, infrastructure planning, social and economic development, and resource revenue sharing.

1.6.2 ROF Infrastructure Development Corporation

In response to the infrastructure challenge of the Ring of Fire, the government also created the ROF Infrastructure Development Corporation in August 2014. Its objective is to bring Aboriginal communities and the public and private sectors together to:

- create partnerships to encourage exploration and development in the Ring of Fire;
- make decisions about investments for building transportation infrastructure (including how to best use the $1 billion that Ontario committed for Ring of Fire infrastructure in its 2014 budget); and
- promote and foster economic development for Aboriginal and non-Aboriginal peoples in the Ring of Fire.

2.0 Audit Objective and Scope

The objective of our audit was to assess whether the Ministry of Northern Development and Mines

(Ministry) has effective systems and processes in place to:

- support the sustainable and responsible exploration and development of Ontario's mineral resources;
- ensure compliance with relevant legislation and ministry policies; and
- measure and report on its effectiveness in encouraging the development and use of the province's mineral resources while minimizing the impacts of mining activities on public health and the environment.

Senior management at the Ministry reviewed and agreed with our objective and associated criteria.

The majority of our audit work was conducted at the Ministry's head office in Sudbury, with visits to the two largest regional offices, in Thunder Bay and Timmins, between November 2014 and April 2015. We interviewed key staff directly involved in:

- the promotion of mining opportunities in Ontario;
- the administration of land tenures (including staking and claims management);
- the collection and dissemination of geological information;
- the review of closure plans and financial assurance;
- monitoring and rehabilitation of abandoned mines; and
- capacity building and relations with First Nations.

We also reviewed pertinent documents associated with the various areas of work by the Ministry.

In addition to our work at the Ministry, we interviewed key staff at the Ministry of Finance on their administration of the *Mining Tax Act* and diamond royalties, and we had discussions with staff at the Ministry of the Environment and Climate Change and the Ministry of Natural Resources and Forestry to gain an understanding of their inspection processes on operating mines and their roles in the development of the Ring of Fire.

We met with First Nations, including the Matawa First Nation Council, to get their perspective on the development of the Ring of Fire. We also visited the Webequie First Nation reserve and met with their leadership and members to get an understanding of their perspective on the work undertaken by the Ring of Fire Secretariat to facilitate development in the area.

We also met with a number of industry associations to obtain their insights on the mining sector in Ontario, and conducted research on the practices of other jurisdictions in the mining sector.

Our audit also included a review of the relevant audit reports issued by the province's internal audit division in determining the scope and extent of our audit work.

Mining pits and quarries related to the mining of aggregate resources such as gravel, sand, clay, granite, and stone, are regulated by the Ministry of Natural Resources and Forestry under the *Aggregate Resources Act*, and thus were not within the scope of this audit.

3.0 Summary

Our audit found that the Ministry has not been effective in encouraging timely mineral development in the province. While a drop in mineral prices in recent years has had an impact on mining activities in the province, Ontario is ranked near the bottom in Canada with respect to attracting mining sector investments. According to the 2014 edition of a Fraser Institute annual survey of mining and exploration companies, Ontario ranked ninth among Canadian provinces and territories in investment attractiveness in mineral exploration, even though it has one of the lowest mining tax rates on income from mining operations in Canada. Ontario has a marginal effective mining tax rate of 5.6%, compared to a national average of 8.6%. Exploration spending in Ontario peaked in 2011, and has since dropped by over 50%.

Discovery of the rich Ring of Fire mineral deposit in a remote area of Northern Ontario is one of the province's greatest mining opportunities in recent years. We noted that the Ministry has worked diligently to establish a Regional Framework agreement with Aboriginal communities that lays out a community based negotiations process for development in the Ring of Fire, and has been funding education and training initiatives to build the capacity of Aboriginal communities to fully participate in future opportunities in the mining sector. However, the area is still not close to being ready for production since its discovery in 2008, and we found the Ministry has no detailed plan or timeline for developing the region.

We also noted the Ministry lacks adequate processes to manage mine closure plans and the rehabilitation of abandoned mines. In particular, closure plans are neither properly reviewed when first submitted, nor subsequently updated on a regular basis to reflect current costs and standards.

In addition, the lack of updated information on existing hazards and rehabilitation costs, and a lack of consistent funding, made it difficult for the Ministry to develop a comprehensive rehabilitation strategy for abandoned mines.

Among our specific findings:

- **Ministry's marketing strategies may be ineffective:** While the Ministry attends about five trade and investment events a year, and relies on other ministries for some of its other marketing activities, it has undertaken no assessment of the effectiveness of these activities in attracting investors. For example, although performance targets are set for generating contacts and meetings to discuss investment opportunities in the province, the Ministry has not consistently tracked whether these meetings or contacts led to any significant investments in the province.
- **Ministry is slow to make geoscience information available to mining industry:** We reviewed the Ministry's list of mapping projects scheduled to be completed by 2014, and found that over one third were behind by an average of 19 months. In addition to publishing its own geological maps and reports, the Ministry also makes available to the public all geological assessment information submitted by prospectors. However, at the time of our audit, we noted that over 1,250 geological assessments dating back to 2013 had not yet been made publicly available online through a searchable database. As a result, this technical information was not easily accessible to potential developers to help them identify opportunities for mineral exploration and development.
- **Lack of clarity on duty to consult with Aboriginal communities slows investment:** Potential investors have to provide Aboriginal communities with information on the impact of mining projects, and ensure that any concerns raised by the communities are addressed. Mining industry associations told us this delegation to the private sector can discourage investments because of the high cost of travelling to many remote Aboriginal communities, and because it was not possible to anticipate either the length of time required to complete consultations, or the outcome of those consultations.
- **Little infrastructure development of the Ring of Fire to date:** The remoteness of the Ring of Fire requires significant infrastructure investment to open access to it and to encourage development in the region. There are also more than 30 First Nation communities or reserves in the region that that must be consulted on any development of the Ring of Fire. In 2010, the Ministry established the Ring of Fire Secretariat to lead the overall development of the region, including co-ordination of infrastructure development and Aboriginal consultation. In addition, in 2014, the provincial government committed $1 billion to infrastructure in the region, contingent on matching funds from the federal government.

However, the federal government did not commit to match the funding due to the lack of detailed plans for development. It directed the provincial government to apply to the New Building Canada Fund once it has plans for specific infrastructure projects in the region. The province remains committed to spending $1 billion in the region, but none of the committed funding has been spent to date and, in any case, the provincial commitment alone will not be enough to meet the region's infrastructure needs.

- **No minerals yet extracted from the Ring of Fire:** In 2013, a large international mining company that held the rights to explore and potentially develop the chromite deposits in the Ring of Fire pulled out and sold most of those rights to a Canadian junior mining company. The Canadian company has no current plans to develop these chromite holdings. Other potential investors cannot mine most of the chromite in the region unless the Canadian company agrees to sell its rights.
- **Mine closure plans lack sufficient technical review:** Ministry staff who review mine closure plans lack the technical expertise to assess plans regarding mines that pose high risks to the environment. Staff can pass these cases on to the Ministry's rehabilitation specialists for review, but we noted the Ministry has no guidelines for when the specialists should be consulted. Our review of a sample of closure plans found that some high-risk threats were not forwarded to the specialists, even though such reviews may have been warranted.
- **Mining company financial assurances may be insufficient to cover mine close-outs:** A third of mine closure plans had not had their financial assurances updated since the early 2000s. We applied a conservative inflation adjustment to existing assurances, and determined that the Ministry has a potential risk of $63 million that is not covered by any financial security. The province could be liable for this amount if private owners are unable to undertake rehabilitation. Also, one company with 10 mine sites has been allowed under the *Mining Act* to self-assure estimated close-out costs totalling $63.8 million.
- **Ministry lacks estimates for abandoned mine cleanup costs:** The Ministry has not estimated the total cost of rehabilitating the 4,400 abandoned mine sites in Ontario since 1993 and therefore does not know the current cost for doing so. It also does not have a long-term plan for rehabilitating these sites. These sites may pose risks to public health and safety and the environment. In the last four years, the Ministry allocated annual funding of only $4 million plus any budget surpluses from other ministry programs to clean up these sites. The Ministry recently determined rehabilitation costs for 56 highest-risk contaminated sites alone to be $372 million. However, it has no plans to carry out a detailed cost estimate for the remaining sites. At the time of our audit, the Ministry's opinion was that the potential cost of rehabilitating these other sites could range from $362 million to $782 million.
- **Few inspections or follow-ups on abandoned mines:** The Ministry conducts minimal inspections and follow-ups on abandoned mines. In the past five years, the Ministry has inspected only about 6% (288) of abandoned mines to ensure that they do not pose a risk to public health and the environment. Of 362 mines that are considered high risk, only 162 have been inspected.
- **Ontario has collected very little in royalties from its only diamond mine:** The only diamond mine operating in Ontario extracted over $2.5 billion in diamonds between the time it opened in 2008 and 2014—but paid the province under $20 million in royalties over the same period. This represents less than 1% of the value of diamonds the company has extracted to date.

This report contains 13 recommendations, consisting of 28 actions, to address the findings noted during this audit. Of the 28 actions, nine are similar to recommended actions in our 2005 audit of this program.

OVERALL MINISTRY RESPONSE

The Ministry of Northern Development and Mines (Ministry) appreciates the Auditor General's report and recommendations. We will move forward to implement a number of the recommendations in the near future, and to determine the path forward on those recommendations where additional work and analysis is needed to help the Ministry determine next steps.

Ontario's rich and long mining heritage has helped to build our province, and will continue to do so in the face of a changing social and economic landscape. Our Ministry is committed to maintaining Ontario's place as a leading jurisdiction for mineral investment while promoting environmental sustainability and Aboriginal participation in the mineral sector and further developing the Ring of Fire. All of these priorities were identified in Premier Wynne's 2014 mandate letter to the Honourable Michael Gravelle, Minister of Northern Development and Mines. The Ministry acknowledges that to maintain our competitive position, we must continue to work in collaboration with industry, Aboriginal people and other stakeholders. In this regard, we are renewing our Mineral Development Strategy to strengthen the mineral sector in Ontario.

In addition, the Ministry has taken important steps to modernize and strengthen the mineral sector in Ontario, including modernizing Ontario's *Mining Act* to better balance industry, Aboriginal and environmental interests. To further address issues identified in this audit, the Ministry also created the positions of Closure Plan Co-ordinator and Surface Water Specialist to ensure a consistent review of all closure plans. All sites with closure plans will be inspected according to a five-year inspection schedule, and we will develop short- and long-term operational and financial plans to clean up the highest priority mine sites that pose a threat to human health and safety or the environment.

Ontario continues to work in partnership with industry and communities to support development in the Ring of Fire and ensure its tremendous potential can be realized for First Nations, Ontario and Canada. In March 2014, Ontario signed a historic framework agreement with the Matawa member First Nations to guide negotiations related to development in the Ring of Fire. The 2016 Budget included up to $1 billion for strategic infrastructure development in the Ring of Fire region, and in August 2016, Ontario established the ROF Infrastructure Development Corporation to move forward in a smart, sustainable and collaborative way with First Nations, the private sector and communities.

4.0 Detailed Audit Observations

4.1 Ontario Could Do Better to Attract Mining Investment

Exploration spending and active claims peaked in 2011, but have since declined dramatically in Ontario from 2011 to 2016 (see **Figure 5**). While a drop in mineral prices in the last few years has had an impact on mining activities in the province, the 2016 edition of an annual Fraser Institute survey of mining and exploration companies ranked Ontario ninth among Canadian provinces and territories in investment attractiveness in mineral exploration, down three spots from 2015.

These factors may be affecting the province's effectiveness in attracting investment to its mining sector:

- the Ministry has not assessed the effectiveness of its marketing strategies;
- the Ministry has been slow to produce geosciences data that investors could rely on to identify mineral potential; and
- the Ministry is creating uncertainty for the mining industry by delegating to private companies the duty to consult with Aboriginal communities on proposed mining activities.

4.1.1 Marketing Strategies Not Assessed for Effectiveness

The Ministry's 2012 marketing strategy for the Mines and Minerals Division (Division) identified a number of marketing activities to promote Ontario as the premier destination internationally for mineral exploration, development and investment. These activities include:

- building relations with the industry and other stakeholders to identify issues and address communication and information gaps;
- engaging the media to spread the message that Ontario is actively seeking new mineral investments;
- creating a presence at international and domestic events and trade shows that align with marketing objectives;
- developing direct marketing campaigns to key mining, financial and bank executives;
- building an online community for the sector to engage target audience(s) in sharing of information and opinions; and
- creating benefits focused promotional and information materials.

However, we noted that the majority of the Division's marketing efforts are focused on participating in about five selected trade and investment marketing events annually to promote awareness of mining opportunities in Ontario and to promote the availability of geosciences discovery work and databases.

The Division also relies on the Ministry of Economic Development, Employment and Infrastructure, and the Ministry of Citizenship, Immigration and International Trade, to deliver certain components of its strategy, including promotion of mining in Ontario during trade missions and media tours, creation of promotional and branding materials for marketing events, and maintenance of an online mining presence as part of the overall promotion of investments in Ontario.

The Ministry has not assessed the effectiveness of its current marketing efforts; nor has it attempted to determine if it is pursuing the right mix of activities to maximize its exposure to potential investors. For instance, although performance targets are set for generating a certain number of investment contacts and meetings at trade shows and marketing events to discuss investment opportunities in Ontario, the Ministry has not consistently tracked whether these contacts and meetings resulted in any significant investments or interest in the province.

In the last two years, the Ministry collected over 350 contacts at these events, but it was unclear whether the Ministry had adequately followed up on a timely basis with these contacts to ensure their information needs were met. In many cases, Ministry tracking simply identified that additional information was provided to these contacts at the events.

4.1.2 Uploading of Geosciences Data for Online Sharing with Industry is Not Timely

Using information collected through geological surveys and field visits, the Ministry produces geological maps and reports that describe the structure, attributes, chemical composition and physical properties of land in Ontario. The mining industry uses this information to identify areas of mineral potential, and to select mineral exploration targets. As such, the quality and timeliness of this geosciences information is important to identify mineral opportunities and attract exploration and development to the province.

In the seven months from January to July 2015 alone, 3,500 ministry online publications of geological maps and reports had been downloaded a total of 328,000 times. Reports were mostly downloaded from China, followed by Canada, the United States, Germany, France and other countries. While mining industry associations we met with were generally satisfied with the quality of the Ministry's geological information, we noted two areas of concern:

- *Many mapping projects were not being completed on a timely basis.* We reviewed the Ministry's list of mapping projects scheduled to be completed by 2014, and found that 36% of the projects that were to be completed were still ongoing as of December 2014. These projects were behind by an average of 19 months. Of the projects that had been completed between January 2012 and December 2014, 30% had been delayed by an average of 11 months. We were informed that these delays were mainly due to reasons such as staff on leave, increase in project scope, and shifting priorities within the Ministry. According to the Ministry, portions of raw data and other components of the projects, such as descriptions of observations made during fieldwork, results of any lab work, and high-level maps, were released two to 30 months prior to project completion to ensure the industry had access to the data without having to wait for the final report. However, access to a partial dataset does not provide companies with complete geological information to allow them to efficiently identify areas of mineral potential for exploration.
- *The Ministry is slow to upload geological assessment reports for online access.* In addition to publishing its own geological maps and reports, the Ministry makes available to the public all geological assessment information submitted by prospectors. The Ministry receives copies of the prospectors' assessment reports and uploads the reports online to make them searchable and more easily accessible to other potential prospectors. In the seven months from January to July 2015 alone, 6,500 assessment reports had been downloaded 514,000 times in total. However, at the time of our audit work in April 2015, we noted over 1,250 exploration reports dating back to 2013 had not yet been uploaded. As a result, this technical information was not easily accessible to potential investors in identifying mineral exploration and development opportunities. The Ministry has since used temporary staffing to help reduce this backlog, as well as releasing some of the 2015 reports in its monthly geologist reports to the public. However as of June 2015 about 1,000 reports remain outstanding to be uploaded to the searchable database.

4.1.3 Unclear Duty-to-consult Process with Aboriginal Communities Impedes Investment

Before mineral exploration or mine development begins, the Crown has the legal obligation to first determine if the planned activities trigger the Crown's legal duty to consult. In cases where exploration or mine development on Crown land have an adverse effect on existing Aboriginal or treaty rights, the province has the legal duty to consult with those communities. This consultation typically involves a process of information exchange that focuses on the proposed activity and its potential to adversely affect treaty and Aboriginal rights. The degree of the potential impact on the communities and the nature of the Aboriginal and treaty rights in question determine the level and amount of consultation needed to meet the legal obligation. Generally, activities that are more complex and bring greater impacts require more consultation.

The Ministry identifies the Aboriginal communities that need to be consulted, but delegates certain aspects of the consultation process to the companies that propose to explore or operate mines. The companies have to provide the communities with information on the impact of projects, and ensure that any concerns raised by the communities are addressed or minimized.

Mining industry associations raised concerns with us that delegating the Aboriginal consultation process to the private sector discourages investments in the province's mining sector because of the high costs of travel to many of these communities in Northern Ontario, and because the length of time to complete the consultation process cannot be controlled.

In addition, a 2014 Fraser Institute report noted that one reason for Ontario's low ranking among Canadian jurisdictions in the investment attractiveness of its mining sector is the lack of clarity and understanding around the Aboriginal consultation process by all parties involved. In comparison to other provinces and territories, Ontario has delegated more aspects of the consultation process to the private sector, and is less directly involved in the process than other jurisdictions. For instance, British Columbia and Quebec have kept full responsibility for the consultation process and its related procedural aspects, and Manitoba takes the lead and manages the consultation process with Aboriginal communities, and delegates only certain information-sharing requirements to the private sector.

The Ministry has indicated that it is assessing the possibility of taking on more of a leadership role in the consultation process by addressing concerns directly with the Aboriginal communities for early exploration work and only requesting the mining industry's involvement when details about their proposed projects are required.

RECOMMENDATION 1

To attract more investment in the province's mining sector, the Ministry of Northern Development and Mines should:

- fully evaluate the cost-effectiveness of its current investment-marketing activities and determine if new, more appropriate strategies should be implemented (we made a similar recommendation in our *2005 Annual Report*);
- complete geological mapping projects and upload the final reports, including geological assessment reports from prospectors, on a timely basis to better facilitate the use of this information by potential prospectors; and
- ensure that the requirements surrounding its Aboriginal consultation process are clarified and can be easily understood by potential investors and Aboriginal communities with serious consideration of the province assuming more of a leadership role.

MINISTRY RESPONSE

The Ministry has integrated the Trade and Investment Marketing activities of both the Mines and Minerals Division and the Northern Development Division. One of the key deliverables of this initiative is the development of a multi-year Trade and Investment Marketing Strategy that reflects the vision and the competitive and innovative objectives of the Northern Ontario Growth Plan and the Mineral Development Strategy. This strategy will be delivered in collaboration with the Ministry of Economic Development, Employment and Infrastructure. The new strategy will be greatly influenced by our consultations with key industry and government stakeholders and direct feedback and evaluations from Trade and Investment Marketing mission participants.

Geological mapping projects will continue to be managed to enhance value to clients, which, from time-to-time, requires extending project deadlines for field work and final report release to accommodate extraordinary and unforeseen technical and administrative situations. Those project extensions will be rigorously documented.

Regarding the assessment file backlog, the Ministry will continue to deliver those files using two online distribution channels, OGS

Earth and GeologyOntario. Our target is to eliminate the file backlog by the end of December 2015, by serving backlog files through the OGS Earth Channel. To mitigate the impact of project extensions on clients, we adjust the project delivery schedule to ensure that clients receive primary project data quickly through a variety of channels and periodic data releases.

The renewed Mineral Development Strategy will address aspects related to growth and prosperity. In addition, the Ministry continues to review and evaluate its approach to Aboriginal consultation, and will consider the recommendations made by the Auditor General to improve the Aboriginal consultation process.

4.2 Ring of Fire Development Has Been Slow

The discovery of the Ring of Fire is considered one of Ontario's most promising mineral development opportunities in a century. However the remoteness of the area requires significant infrastructure investment to develop the deposits. There is currently no infrastructure linking the region to existing roads, rail or electricity. There are also more than 10 First Nation communities around the region that have to be consulted regarding any development of the Ring of Fire.

4.2.1 Little Development of the Ring of Fire to Date

The Ring of Fire region attracted a lot of attention with the discovery of chromite in 2008. The provincial government described it as the discovery of the century, with the potential to create thousands of jobs and enhance the prosperity of Ontario and Canada.

At the height of interest in the area, there were over 2,500 claims covering about 530,000 hectares of land. By 2015, this has dropped to fewer than 1,000 claims covering about 200,000 hectares as mining companies gave up claims, either because they did not contain viable deposits, or because the companies saw little prospect of achieving production in the near future given the lack of progress on infrastructure development.

The strategic significance of the chromite discoveries to the North American steel industry attracted an international mining and natural resources company to the region. In 2010, this international company acquired the mineral rights to three of the known chromite deposits in the region for $350 million, and started feasibility and environmental assessment studies to pursue development of these deposits. However, the company suspended its work indefinitely in 2013, citing an uncertain timeline and risks associated with the development of the infrastructure necessary to further this project. It subsequently sold its interests in the region in 2015 to a Canadian mining company for US$27.5 million—a fraction of what it paid for them—when its parent company was experiencing financial difficulties. The Canadian company now has ownership of, or a controlling interest in, all the major discoveries to date in the region. While the Canadian company is currently pursuing development of its nickel deposits in the region, and its goal is to establish the commercial production of nickel within three years of obtaining the necessary mining and environmental permits, it currently has no plans to develop the chromite holdings. The company plans to undertake a preliminary economic analysis for all of the development options for the Ring of Fire chromite projects.

4.2.2 Province Lacks Detailed Plan or Timeline to Develop Ring of Fire

The government announced and launched a number of initiatives to develop the Ring of Fire region. In 2010, the Ring of Fire Secretariat was established to lead the overall development of the region, including co-ordination of infrastructure needs, economic development, the environmental assessment process, and Aboriginal engagement/consultation.

In its 2014 Budget, the government committed $1 billion to infrastructure in the region. However, this commitment was not based on a detailed assessment of the region's infrastructure needs. To oversee the infrastructure development, the government also created the ROF Infrastructure Development Corporation and signed a negotiation framework with the region's Aboriginal communities.

However, the government's development initiatives have few defined timelines for completion and, where target completion dates do exist, they have been missed. The industry has identified this uncertainty as a barrier to attracting development and investment to the region.

Secretariat Missing Deadlines, Lacks Performance Measures to Assess Effectiveness in Aiding Development

Since its establishment in 2010, the Ring of Fire Secretariat has grown to three regional offices, in Sudbury, Toronto, and Thunder Bay, with 19 staff and total operating expenditures of $13.2 million over the last five years. However, there are no performance measures to gauge and report on the effectiveness of the activities it has undertaken to facilitate development in the region.

We noted that the Secretariat has continuously missed milestones established by the government for the development of the Ring of Fire. For instance, by establishing the Secretariat, the government had hoped that development would start in the Ring of Fire by 2015. However, mine development cannot begin until land-use planning (under the Ministry of Natural Resources and Forestry) and environmental assessments (under the Ministry of the Environment and Climate Change) are complete. Environmental assessment approvals were targeted for completion by December 2012, but are still outstanding. In this regard, we noted that the terms of reference, the first of the two approvals required for environmental assessments, were submitted in October 2012 by the Canadian company that plans to start mining nickel, but were not approved by the government until June 2015.

Similarly, land-use planning in the region was to be completed by 2015, but is now delayed for two years. According to the Ministry, the delays are due to the time it has taken to consult with Aboriginal communities.

Ontario's Funding Pledge to Ring of Fire Insufficient to Develop Necessary Infrastructure

In the 2014 Budget, the government announced a commitment of up to $1 billion to develop strategic all-season industrial and community transportation infrastructure in the Ring of Fire, contingent on a matching investment by the federal government.

The provincial commitment alone is not enough to meet the region's infrastructure needs. However, the federal government did not commit to matching the provincial funding, citing the lack of a detailed Ontario plan to develop the region. Instead, the province will have to develop plans for specific infrastructure projects in the Ring of Fire, and then apply to the federal New Building Canada Fund. The federal government wants funds to be directed toward identified projects with specific goals, and is waiting for the province to submit a proposal for specific priorities. The province has indicated that it will move forward with the infrastructure commitment regardless of whether the federal government provides matching funding.

As of July 2015, the Ministry had not set any timelines for infrastructure projects in the Ring of Fire that could be funded from the government's $1-billion commitment.

Stakeholders Not Engaged in the ROF Infrastructure Development Corporation

The concept of a joint development corporation was first discussed in April 2012 between the province and the international company with mineral rights to the chromite deposits in the Ring of Fire. Discussions centred on plans to share the cost of a

300-kilometre road connecting the company's proposed mine to existing transportation corridors.

In the 2014 Budget, the government announced plans for a multi-stakeholder development corporation—the ROF Infrastructure Development Corporation (Corporation)—to accelerate infrastructure development in the region. The Corporation is intended to bring together both private and public sectors, including key mining companies, Aboriginal communities, and the federal government, to create partnerships and facilitate investment decisions in the transportation infrastructure. The Corporation is to be responsible for constructing, financing, operating and maintaining infrastructure to open access to the Ring of Fire.

The Corporation was created in August 2014; however, at the time of our audit, there was no representation on its Board of Directors from any stakeholder group, such as First Nations, industry, or the federal government. The current Board is composed of five senior bureaucrats from the Ontario government. In addition, there were no set timelines for when stakeholders would be engaged. The Corporation has cost $550,000 to set up thus far, and is anticipated to have annual operating expenditures of $4 million, including $2.5 million for staffing, once it becomes operational.

Regional Negotiation Has No Targeted Milestones or Established Timeline for Completion

There are nine Matawa First Nation communities impacted by resource development in the Ring of Fire region, and in March 2012, the government directed the Ministry to engage these Aboriginal communities in negotiations for future development. They were to discuss issues related to socio-economic activities to prepare them for mineral development.

In March 2013, the Chiefs of the Matawa Tribal Council, representing the nine First Nation communities, requested a community-based regional process of negotiation with the government. The government hired former Supreme Court of Canada Justice Frank Iacobucci to represent it, while the Matawa communities hired former Ontario Premier Bob Rae as their key negotiator. Expenses for these negotiations are paid by the Ring of Fire Secretariat. As of March 2015, $6.9 million had been spent, primarily to facilitate participation by the nine Aboriginal communities in the negotiation process, and on remuneration for the two negotiators.

The negotiation resulted in the signing of a Regional Framework Agreement in March 2014, the purpose of which is to establish a protocol for negotiations between the communities and the province on shared priorities such as enhanced participation in environmental assessment processes, resource-revenue sharing, economic supports, and regional and community infrastructure.

Phase 2 of the negotiation has begun. It aims to have the province and the Aboriginal communities plan for the shared priorities identified in the Framework Agreement, such as resource-revenue sharing. However, there is no targeted completion date for this phase.

RECOMMENDATION 2

To help ensure the timely development of the Ring of Fire, the Ministry of Northern Development and Mines should:

- establish a detailed plan with measurable outcomes, and regularly assess and report on progress in achieving them;
- continue to engage all stakeholders, including the federal government, in the funding and development of the region; and
- work to expedite negotiations with Aboriginal communities.

MINISTRY RESPONSE

Project plans and key milestones for the Ring of Fire were previously prepared and tied to industry targets. In 2010, project plans were developed with a project development timeline of 2015/16. Since then, the landscape for development has shifted.

The Ministry agrees with the recommendation to develop a revised and measurable plan, with progress reports and regular assessments, that will focus on those areas where Ring of Fire Secretariat plays a co-ordinating role. As with the initial timelines established in 2010 for development of the region, revised timelines will be based on current conditions and can be subject to change due to any number of external factors and interdependencies beyond the Ministry's control. Public reporting of certain information may also be subject to limitations due to business or other confidentiality requirements.

The Ministry agrees with the Auditor General's recommendation that we should continue to engage all stakeholders, including the federal government, in the funding and development of the region. Ontario has reached out to the federal government, including welcoming federal participation in the ROF Infrastructure Development Corporation and seeking federal support for the cost of infrastructure in the region. In addition, Ontario and the federal government are jointly funding a First Nation-led all-season-access corridor study, examining options for an all-weather transportation corridor system connecting remote Matawa First Nations and the Ring of Fire with existing roadways. This would further position the communities to realize economic benefits from the region and other development opportunities, and improve socio-economic conditions.

The Ministry is working to further negotiations with Matawa-member communities through phase 2 of the Regional Framework Agreement process, which will continue to focus on making progress on key milestones related to enhanced participation in environmental assessment processes, regional long-term environmental monitoring, improving socio-economic development supports, options for regional infrastructure development and resource revenue sharing.

In addition to work under the Regional Framework Agreement process, the Ministry continues to work with individual First Nations and organizations to build capacity to participate in and fully benefit from future opportunities.

4.2.3 Few Controls over Funds Provided to Aboriginal Communities for Capacity Building

The Ring of Fire Secretariat has a number of transfer payment agreements with the nine Matawa First Nations impacted by development in the Ring of Fire that are intended to help build capacity within the communities to prepare for, and respond to, mining development within the region.

Capacity-building resources have funded training workshops on negotiations, project management, the development of partnerships with mining companies, increasing community engagement, and the procurement of communications hardware such as radio equipment.

Since its inception, the Ring of Fire Secretariat has transferred about $16 million to the nine communities in the region. The communities are required to provide reports for the payments they receive, including progress reports, expense reports, and audited financial statements.

However, we noted that these reports were not submitted on a timely basis, and the reports that were submitted contained little supporting documentation to show whether the funds were spent according to the transfer-payment agreements. For example, while communities can claim expenses such as staff travel, meals and accommodation, and professional and legal fees, few invoices were submitted to support the amounts claimed in the expense reports.

RECOMMENDATION 3

The Ring of Fire Secretariat should ensure that transfer payments made to Aboriginal communities in the Ring of Fire are used in accordance with the transfer-payment agreements by obtaining the requisite reporting (progress reports, expense reports and audited financial statements) on a timely basis. The reports submitted should be detailed enough to show how the funds are spent.

MINISTRY RESPONSE

One of the challenges in addressing concerns related to timely and effective reporting is the lack of financial and project capacity by the First Nations to respond to the additional provincial and federal reporting requirements associated with Ring of Fire-related transfer-payments agreements. Ontario and Canada are working together to address these challenges through funding for additional financial resources and staff, as well as for training in financial management and accountability. Through the Ring of Fire Secretariat, Ontario is continuing direct engagement with First Nations to facilitate the completion of reporting requirements and identify their training and resource needs. The Ministry has also asked the Ontario Internal Audit Division to provide advice on approaches to Aboriginal transfer payments. Ontario is also piloting different delivery mechanisms for funding agreements, including using of Tribal Councils to provide additional administrative support.

4.3 Staking and Claims System Needs Improvement to Ensure Exploration Work Continues Responsibly

As of April 2015, there were about 33,000 registered claims covering about 4.1 million hectares of Crown land.

To maintain a claim in good standing, the holder must perform a minimum of $400 worth of eligible exploration work annually for each claim unit (one claim unit is 16 hectares of land) and report these activities to the Ministry for approval.

The Ministry annually verifies a sample of the eligible exploration expense reported by holders of claims. Amounts spent in excess of the minimum can be applied against future years, and on other connected claims. A claim would be considered forfeit, and be reopened for staking, if this requirement is not met.

In 2014, prospectors reported $110 million of exploration work to the Ministry. The Ministry annually verifies the expenses of around 10% of the exploration work reports they receive from claim holders for eligibility, and rejects those that are unreasonable.

In the following subsections, we examine the process surrounding mining claims and mineral exploration, and outline weaknesses noted in the process.

4.3.1 A Claimholder Can Effectively Re-stake the Same Land Indefinitely without Intending to Explore for Minerals

When mining claims are forfeited because current claimholders have not performed the minimum exploration work, they are reopened to the public for staking. The Ministry allows the re-staking of mining claims by prospectors that have previously forfeited their claims. This allows prospectors to maintain their claims indefinitely without performing the required exploration work, and could negatively impact the discovery of mineral resources.

The Ministry informed us that it is difficult to determine which land has been cancelled and re-staked by the same person because it is unable to identify individual plots, and land is assigned a new identifier each time it is re-staked. Also, once a claim is cancelled and the land becomes open for re-staking, the prospector can change the size of the area, making it difficult to determine if it is the same plot of land being re-staked.

However, when we compared a sample of claims that had been forfeited and re-staked in the last three years, we identified a number of claims that had been re-staked by the same prospectors whose claims were previously forfeited because of a lack of eligible exploration—often within one day of the claim being reopened. The Ministry has no policy to prevent someone with a poor record of conducting exploration work from re-staking the same land, or even staking new claims.

4.3.2 No Existing Ministry Plan to Inspect Sites to Ensure They Have Been Sufficiently Rehabilitated

The *Mining Act* requires rehabilitation of sites where exploration work has impacted the environment.

In 2012, the Ministry started requiring prospectors who perform low-impact assessment work to submit an exploration plan listing the exploration activities to be undertaken. Those who perform moderate-impact assessment work were required to apply for an exploration permit, the details of which are posted on the public Environmental Registry for public comments.

Provincial standards require any rehabilitation work to be completed prior to the expiry of the applicable plan or permit. However, the Ministry's inspection of sites to ensure that they have been sufficiently rehabilitated from early exploration work was limited.

In 2013 and 2014, the Ministry performed just 41 inspections, representing only 6% of the sites that had an active plan or permit in December 2014. In our review of the inspection reports, we noted that the Ministry identified a high rate of non-compliance, such as uncontained drill fluids, lack of fencing around pitches, and fuel containers that had been improperly disposed of, confirming a need for the Ministry to inspect sites where mineral exploration had taken place.

Although the Ministry inspected sites while exploration work was still ongoing, sites should ideally be inspected when the exploration work is nearing completion. In addition, there is no requirement for prospectors to notify the Ministry when exploration work has been conducted on claims and, as a result, inspection efforts are often wasted on sites where no exploration has taken place. In 2013 and 2014, we noted a number of cases in which the inspectors visited sites to perform an inspection, but exploration had not yet begun.

As seen in **Figure 8**, a large number of plans and permits are scheduled to expire in 2015, 2016 and 2017. However, the Ministry currently does not have a plan to inspect these sites before the prospectors leave.

Figure 8: Exploration Plans and Permits Expiration, as of August 2015

Source of data: Ministry of Northern Development and Mines

	2013	2014	2015	2016	2017	2018
Plans	0	0	192	91	86	0
Permits	4	4	6	230	125	85
Total	**4**	**4**	**198**	**321**	**211**	**85**

RECOMMENDATION 4

To ensure continual exploration on claimed land, and proper rehabilitation of sites where exploration has taken place, the Ministry of Northern Development and Mines should:

- disallow forfeited claims from being re-staked by the same owners until an appropriate period has passed (we made a similar recommendation in our *2005 Annual Report*); and
- develop a risk-based plan to inspect sites undergoing exploration work with the potential to have a negative impact on the environment.

MINISTRY RESPONSE

The issue of forfeited claims being re-staked by the same owners will be brought to our industry and stakeholder advisory group for their consideration and input. In addition, all permitted exploration sites will be assessed for inspection prioritization on a case-by-case basis.

4.4 Financial Assurance May Be Insufficient to Cover Mine Close-out Costs

The *Mining Act* requires a mining company to submit a closure plan and financial assurance for the estimated cost to rehabilitate a site before it commences advanced exploration activities or mining operations. Mining companies must certify that the closure plan was prepared by an expert where required, and that it complies with current legislation. The financial assurance acts as a guarantee and is returned once a site is deemed to have been appropriately rehabilitated.

In the following subsections, we highlight our concerns relating to the Ministry's review of closure plans and the financial assurance that companies have provided for the rehabilitation costs of sites that have undergone mining activities.

4.4.1 Closure Plans Not Properly Reviewed and Updated

The Ministry has 13 in-house Mineral Exploration and Development Consultants who are responsible for overseeing and reviewing the industry's mine closure plans, and for assessing whether the amount of the financial assurance provided by mining companies will be sufficient to rehabilitate sites when advanced exploration or mineral development activities cease.

These consultants have no technical training to assess the adequacy of the plans they oversee. They use checklists to ensure completeness of the files, and they rely on self-certification by each mining company that it complies with the standards set out in the Ontario regulations, including the mining company's use of qualified professionals in the preparation of the closure plan, where required. However, the consultants can choose to pass along certain high-risk components of the plans for technical review by the Ministry's three rehabilitation specialists, who have technical expertise in different mine hazards such as tailings, and acid and metal leaching into the environment.

With respect to the consultants' review of closure plans, we noted the following:

- The consultants responsible for ensuring compliance with the requirements for mine closure plans and assessing the adequacy of financial assurances provided by mining companies are also responsible for promoting mineral exploration and development in Ontario by helping the industry through the regulatory process required to develop mining projects. These roles inherently conflict with one another. We observed a number of instances where the consultants did not recommend the more stringent rehabilitation requirements on the industry as advised by ministry specialists or inspectors because they felt the requirements created hardship for mining companies. For example, in some mine closure plans, the consultants:
  - accepted a financial assurance for land re-vegetation at a cost that was 10 times lower than the cost recommended;
  - did not enforce the recommended assessment of the long-term stability of the structures that support an underground mine;
  - did not request tests to be performed as recommended to determine the likelihood of acid leaching into the environment; and
  - did not enforce the requirement for additional financial assurance for the rehabilitation of a water-diversion tunnel.

  The result of these less stringent requirements is that mining companies may not be providing sufficient financial assurances for the rehabilitation work, especially where the land may be contaminated. If the mining companies are unable to properly close out mines at the end of their productive life, the government may have to take responsibility for these costs.

- There are no guidelines on when certain components of closure plans should be subject to technical review. Although consultants can escalate high-risk components of the closure plans to the Ministry's rehabilitation specialists for review, the Ministry did not have guidelines as to when this expertise should be sought. It was up to the consultants to determine whether certain components should be escalated for review. In our review of a sample of closure plans, only 30% of the files had any evidence that specialists' input had been sought. We noted a number of closure plans for mines that had tailings and/or the potential for acid leaching into the environment that may have warranted review by a specialist but were not forwarded.
- The Ministry does not regularly conduct site inspections to ensure that closure plans for mines accurately reflect the mining activities that are taking place. The Ministry is to perform physical inspections of mines to ensure that closure plans accurately reflect mine development and may request an amendment of the plans and/or additional financial assurance if it so deems. Of the 162 closure plans on file as at August 2015, 16 had not been inspected in the last five years, and 10 of these sites had never been inspected since the submission of their respective closure plans to the Ministry in 2001/02. For those sites that it had inspected, the Ministry found a high rate of non-compliance in the closure plans. Of the 62 sites it visited in 2013 and 2014, nearly 45% of the closure plans were either non-compliant (for example, not all existing mine hazards were addressed in the closure plans, or rehabilitation work was not professionally certified), or were identified as needing an adjustment to the financial assurance on file. In these cases, the inspectors only identified the potential need for an adjustment to the financial assurance, and it was up to the companies to undertake the necessary assessment to determine how much additional financial assurance they needed to submit to the Ministry. As of August 2015, only one company had provided additional financial assurance, while another responded that no adjustment was required.

RECOMMENDATION 5

To ensure submitted closure plans are adequately reviewed and reflect activities that are taking place on a mine site, the Ministry of Northern Development and Mines should:

- segregate the responsibility for the promotion of mineral exploration and development in Ontario from those responsible for the oversight of mine-closure plans;
- develop specific guidelines on when high-risk components of closure plans should be subjected to expert review;
- inspect sites that have a closure plan in place on a regular basis to ensure the plan accurately reflects current mining activities on the sites; and
- enforce the rehabilitation requirements recommended by ministry specialists and inspectors and take proactive measures to ensure that the financial assurance is adjusted accordingly on a timely basis.

MINISTRY RESPONSE

Beyond the mandate to "encourage" contained in section 2 of the *Mining Act*, Mineral Exploration and Development Consultants do not have the responsibility for promotion of mineral exploration and development. Their role is to facilitate and assist with the regulatory process, including consultation, and to review the mine closure plans. Promotion is primarily the role of the Resident Geologist staff within the Ontario Geological Survey. The Ministry will work with staff to ensure that they are clear on their roles and responsibilities, and how to apply them.

In order to ensure a more thorough and consistent review of closure plans, a Closure Plan Co-ordinator position was created in late 2014 and filled in early 2015. This position is staffed by a professional engineer/technical specialist, and was created to work directly with Mineral Exploration and Development Consultants to ensure appropriate technical review of all closure plans by technical specialist(s).

The Ministry has a five-year inspection schedule that will ensure that all sites with closure plans will be inspected in this time frame. The Ministry has increased its inspection contingent in the last three years to ensure that this inspection schedule and follow up activities can be met. The number of inspection staff was increased from two to four in 2009, and then increased again to nine in 2011. We also added the Supervisor of the Inspection Unit in 2012. The five year inspection schedule was implemented when the additional inspection staff were hired four years ago. The Ministry will ensure all closure plans are inspected in accordance with the schedule.

The Ministry will continue to ensure that all closure plans and closure plan amendments are thoroughly reviewed, and that recommendations from ministry specialists and inspectors are thoroughly considered and implemented appropriately with required adjustments to financial assurance.

In the last year the Ministry has expanded its capacity for technical review and increased staff from three to five by hiring a Surface Water Specialist and the Closure Plan Co-ordinator/Technical Specialist.

4.4.2 Financial Assurance Retained by the Ministry May Not Reflect Actual Costs to Close Out Mines

Prior to opening a mine, a company is required to submit financial assurance to the Ministry for the estimated cost to properly close out the mine when production ceases. This cost is estimated based on market costs on the day the closure plans are submitted to the Ministry. There is currently no requirement for mining companies to subsequently update their estimated costs to reflect changing market conditions and changes to rehabilitation standards over the life of the mine. Changes to the financial assurance balance are made only through voluntary amendments filed by the mining companies or ordered by the Ministry through its inspection work.

A third of the closure plans were filed or last amended in the 1990s and early 2000s. Applying a simple inflation adjustment to all closure plans using the Bank of Canada Consumer Price Index results in a potential $65 million shortfall in financial assurance net of any interest earned by the Ministry. This means that the province could be liable for this shortfall if the private owners are unable to undertake the necessary rehabilitation work because the province does not hold sufficient funds to cover the rehabilitation costs.

Quebec amended its *Mining Act* in 2013 to require the Ministry of Natural Resources to publish annually the rehabilitation and restoration plans approved by the Minister for its mining companies and the total amount of the financial guarantee required.

Ministry Has Not Acted to Ensure Updates

In addition, the Ministry has taken no action to ensure that companies update any closure plans and related close-out costs that are not compliant with current standards. We found that over 20% of the plans filed with the Ministry predate the rehabilitation standards implemented by the Ministry in 2000, and that two-thirds of these plans were submitted during a period when the Ministry had no technical experts on staff to review the plans. For example, some current mine closure plan requirements, such as the need for a professionally certified surface water monitoring plan and a ground water contamination study, did not exist prior to 2000. As such, their financial assurance may not be sufficient to be in compliance with current standards.

As well, three mine sites have been without closure plans or financial assurances since 1991, and one since 2003. At two of the three sites (Geco Mine in the Thunder Bay District and Mattabi Mine in the Kenora District) where closure plans had been outstanding since 1991, the mining company is challenging the Ministry's position to only allow a portion of the financial assurance to be secured by a guarantee from its parent company. The company argued that it should be allowed to secure the entire financial assurance requirement with the parent's guarantee. The Ministry's estimate of the closure costs for these two sites is over $30 million. This case has been forwarded to the Office of Mining and Lands Commissioner (OMLC) for a decision. The OMLC is an independent judicial and administrative tribunal responsible for hearing and deciding matters under legislation administered by the Ministry of Natural Resources and Forestry and the Ministry of Northern Development and Mines.

A third site (Carshaw Malga Mine and Mill in the Timmins District) has been without a closure plan or financial assurance since 1991. Under the *Mining Act*, the Minister of Northern Development and Mines may appoint one or more ministry employees as Directors of Mine Rehabilitation. These employees would have the power to order private mine owners to comply with the *Mining Act*. The Ministry issued a Director's Order in August 2013 to enforce the requirement for a closure plan, but the company has not complied with the order. The Ministry is currently evaluating its options to address this situation.

At the site where a closure plan has been outstanding since 2003 (Canadaka in the Cobalt District), the company started the closure plan submission process in October 2008, but the Ministry has yet to receive any financial assurance for this site.

4.4.3 Financial Assurance Returned without Adequate Inspection of Mine Sites

A financial assurance is security that is held by the Ministry to carry out the rehabilitation of a mine if the company fails to do it itself, and is returned to a mine operator once a site is deemed to have been appropriately rehabilitated. Over the life of a mine or exploration activities, companies can request the return of portions of the financial assurance after they have undertaken progressive rehabilitation work (rehabilitation done in phases during the entire period that a project or mine hazard exists).

Financial assurances are returned when the rehabilitation work is accepted by the Ministry following an inspection of the site. We noted that while the Ministry has undertaken inspections of rehabilitation work prior to returning the associated financial assurance, it only visually inspects hazards that are above ground, and would not detect any contamination below the surface.

In 2010, the Ministry returned $500,000 to a mining company after the company had completed progressive rehabilitation work. However, the company failed to inform the Ministry of a known contamination below the surface for which it had not provided financial assurance in its closure plan. The Ministry subsequently became liable for the cleanup of this contamination, at an estimated cost of $2 million, when the company filed for bankruptcy in 2012. The Ministry stated that because the contamination was below surface at a depth of about a meter, it could not be identified through its normal inspections.

4.4.4 Allowing Companies to Self-assure Mine Closeout Costs Has Risks

If a mining company's credit rating meets or exceeds two of the following credit ratings, the company is allowed to fully self assure mine closeout costs for the entire life of the mine and is not required to provide any other form of security to the Ministry:

- A (low) from the Dominion Bond Rating Service Limited;
- A3 from Moody's Investors Services Inc.; and
- A- from Standard and Poor's Inc.

If the company's credit rating meets or exceeds two of the following credit ratings, the company is allowed to self assure for the first half of the life of a mine if that first half is at least four years:

- BBB (low) from the Dominion Bond Rating Service Limited;
- Baa3 from Moody's Investors Services Inc.; or
- BBB- from Standard and Poor's Inc.

If, as a result of a credit rating downgrade or credit watch, the company no longer qualifies to self assure, it is required to provide the Ministry with an accepted form of security within 30 days of the downgrade.

Currently in Ontario, there is one company (Vale Canada Limited) with 10 mine sites that is allowed to self assure its estimated close out costs of $65.9 million for the first half of the life of its sites. For this company's sites, the Ministry has no recourse if this company is unable to fulfill its obligation to rehabilitate the land because the Ministry holds no form of security for these sites.

In our review, we noted that one of the sites passed the first half of the life of the mine in January 2015 and therefore the company is no longer eligible to self assure the close out costs for this site. However, as of August 2015, the Ministry had not yet collected other forms of financial security from the company. The Ministry informed us that it is in discussion with the company in this regard.

Acceptance of self assurance by the Ministry as permitted under the *Mining Act* exposes the government to some financial risks because if the companies are unable to meet their obligations, rehabilitation costs become the province's responsibility. Manitoba is the only other province in Canada that specifically allows mining companies to self assure if the companies' credit rating meets specific criteria.

RECOMMENDATION 6

To ensure that the amount of the financial assurance collected by the Ministry of Northern Development and Mines (Ministry) provides sufficient security against potential liabilities related to mine close out costs, the Ministry should:

- require mining companies to regularly update their estimated mine close out costs and the related financial assurance to reflect changing market conditions and changes to rehabilitation standards (we made a similar recommendation in our *2005 Annual Report*);
- verify when it inspects progressive rehabilitation prior to returning a portion of the financial assurance whether mine development is still in line with the existing closure plan, and that no other hazards exist on site which the Ministry was not previously aware of; and
- reassess its practice of allowing certain companies to self assure mine close out costs (we made a similar recommendation in our *2005 Annual Report*).

MINISTRY RESPONSE

The financial assurance for all closure plans is reviewed as part of the inspection. The Ministry has implemented a five year inspection schedule to ensure that all closure plans are reviewed and updated on a regular basis. The Ministry will assess the need for a requirement to have companies update their financial assurance amounts regularly to reflect market and regulatory changes as needed.

The Ministry currently inspects all progressive rehabilitation prior to the return of financial assurance and, in addition, the Ministry, through a review of the closure plan, also takes into account the amount of financial assurance required to conduct the remaining rehabilitation required on the site, and returns only the financial assurance that is surplus to that amount. In the last year, the Ministry has expanded its capacity for technical review by hiring a Surface Water Specialist and a Closure Plan Co-ordinator/Technical Specialist. These positions will assist the inspectors and other technical experts to ensure all potential hazards are assessed, including the undertaking of testing where necessary.

The Ministry will continue to review the existing financial assurance regime. However, any change to allowing companies that meet the corporate financial test to self assure mine close out costs would require amending legislation. Ontario will continue to closely monitor self assured companies to ensure compliance with existing legislative requirements.

RECOMMENDATION 7

To inform the public on the potential liabilities related to mine close-out costs, the Ministry of Northern Development and Mines should annually publish the approved mine closure plans (for rehabilitation and restoration), including the estimated closure cost and associated financial assurance held by the Ministry.

MINISTRY RESPONSE

The Ministry is committed to Open Government and will consider the Auditor General's recommendation and explore approaches for informing the public about potential liabilities.

4.4.5 Provincial Environmental Assessment Not Mandatory for Mining Projects

Ontario is the only province in Canada that does not require a provincial environmental assessment to be performed for mining projects. An environmental assessment is a process undertaken to identify, predict and mitigate any effects that a proposed project may have on the environment before the project begins. The assessment typically includes a description of the project and its impact on the existing environment, and the proposed actions to address or manage the environmental effects. Provincial environmental assessments, if performed, are submitted to the Ministry of the Environment and Climate Change for review and approval under the Ontario *Environmental Assessment Act* (Act).

The Act applies only to provincial ministries and agencies, municipalities and public bodies such as conservation authorities, and generally does not apply to the private sector, including mining projects proposed by the private sector. However, if a mine project includes certain components, such as construction of power generation or transmission facilities, or establishment of waste management facilities, this may trigger the requirement for an environmental assessment.

In Ontario, the *Mining Act* only requires mining companies to submit closure plans prior to the development of the mine outlining how the affected land would be rehabilitated and the estimated costs to do so. Private companies may, however, voluntarily go through an environmental assessment for their proposed projects. In other provinces in Canada, larger mining projects automatically trigger a provincial environmental assessment.

RECOMMENDATION 8

The Ministry of Northern Development and Mines should work with the Ministry of Environment and Climate Change to assess the benefits of larger mining projects in Ontario undergoing a provincial environmental assessment similar to the environmental assessments conducted in other Canadian provinces.

MINISTRY RESPONSE

The Ministry will explore the consideration of new provincial environmental assessment approaches for larger mining projects with the Ministry of the Environment and Climate Change.

4.5 Abandoned Mines Pose Significant Financial Risks to Ontario

As seen in **Figure 5**, about 2,400 abandoned mines are held by the Crown and another 2,000 are privately held.

The province is responsible for the cleanup of any hazards in abandoned mines held by the Crown, and for monitoring and enforcing the rehabilitation of those that are privately held. Privately held mines revert to the Crown if the owners, for example, have unpaid rent or taxes. In these cases, the province would also be responsible for the cleanup of these mines.

In the last five years, 63 privately held abandoned mines have reverted to the Crown, and the Ministry has reported in the Public Accounts that it will cost an estimated $40 million to rehabilitate four of these abandoned mines that have contamination. These mines are the Lake Shore Tailings mine in the Kirkland District, the Long Lake Mine in the Sudbury District, and the Reeves Mine and Canadian Jamieson Mine in the Timmins District.

4.5.1 Ministry Has No Current Estimate of the Cost of Rehabilitating All Abandoned Sites

The Ministry does not have a current estimate of the total cost of, or a long-term plan for, rehabilitating physical hazards and contamination on all abandoned mine sites in Ontario. It last commissioned an estimate of the cost of rehabilitating all abandoned mines in the province in 1993.

At the time, the Ministry, as part of an interministerial committee made up of five ministries along with the Ontario Mining Association, estimated the cost of cleaning up all abandoned mine sites at $300 million, not including the cost to clean up any chemical contamination, which can be considerable. For instance, over the last 15 years, the cleanup cost of one of the high-risk sites (Kam Kotia in the Porcupine District) containing chemical contamination has been $75 million so far, with another $20.7 million estimated to complete the rehabilitation, plus annual maintenance costs totalling about $750,000 to continually treat water in a tailing dam associated with the mine.

While the Ministry has not undertaken another exercise to estimate the rehabilitation cost for all abandoned mines in Ontario, it did complete site assessments in 2008 on 95 high-risk sites with tailing dams, which are storage areas for mine wastes. It estimated that approximately $208 million would be required to rehabilitate these sites.

Ministry Identified Liability of $303 Million on 44 Abandoned Mines

In 2015, in response to a new accounting standard for public sector reporting on liabilities for contaminated sites, the Ministry recorded a liability of $303 million for 44 contaminated abandoned mine sites that the government is, or would likely be, responsible for rehabilitating, and reported a contingent liability of $69 million for 12 abandoned mine sites that may become the government's responsibility to rehabilitate in the future. This standard only requires the reporting of a liability for contaminated sites that meet all of the following criteria:

- an environmental standard exists;
- contamination exceeds the environmental standard;
- the government is directly responsible or accepts responsibility;

- it is expected that future economic benefits will be given up; and
- a reasonable estimate of the amount can be made.

The Ministry informed us that it currently has no plans to do a detailed cost estimate to rehabilitate the remaining abandoned mine sites in Ontario that have physical hazards but do not meet the criteria for recording a liability (that is, no contamination or the level of contamination is below the environmental standards) because it is a costly process and any estimate becomes outdated very quickly.

At the time of our audit, the Ministry revised its 1993 cost estimate by updating the number of physical hazards and the cost associated with rehabilitating these hazards, and estimated that the cost to rehabilitate these sites could range from $163 million to $782 million. However, costs associated with environmental assessments, site accessibility, or distance of sites from rehabilitation resources are not included in the Ministry's revised estimate. Only a detailed assessment of the sites would yield a more precise cost estimate to rehabilitate these sites.

In 1999, the Ministry established the Abandoned Mines Rehabilitation Program (Program) to manage the clean-up of physical and environmental hazards at abandoned mine sites on Crown land. The Program has received a total $138 million over the last 16 years, and it has completed full or partial rehabilitation of 75 abandoned mine sites. **Figure 9** shows the amounts spent on rehabilitation and other activities such as the ongoing maintenance costs of rehabilitated sites (for example, lime and water-treatment costs), planning costs (for example, environmental assessments), and costs related to responding to emergency situations over the last five years.

However, going forward there is no fixed-base funding dedicated to the rehabilitation of the abandoned mine sites. In the last four years, the Program received annual funding of only $4 million, plus any budget surplus from other programs at the Ministry to cover all its costs. Surpluses received over the last four years ranged from nothing to $10.6 million a year, and totalled $24.4 million.

4.5.2 Ministry Inspections of Abandoned Mines Insufficient to Identify and Address Hazards to Public Health or the Environment

The Ministry conducts minimal inspection and follow-up activities on abandoned mine sites to ensure that these mines do not pose a threat to human health or the environment.

In the past five years, the Ministry has only inspected about 6% (248) of the approximately 4,400 abandoned mines on both Crown and privately held sites (see **Figure 5**). A number of the sites not inspected are considered high-risk sites containing tailing dams with high levels of arsenic, cobalt, uranium and other metals that can contaminate the surrounding area if they are not properly managed. Of the 362 high-risk sites, only 142 (39%) have been inspected at least once in the last five years by the Ministry.

Figure 9: Rehabilitation Program Expenditures, 2010/11–2014/15 ($ 000)

Source of data: Ministry of Northern Development and Mines

Expenditures	2010/11	2011/12	2012/13	2013/14	2014/15
Rehabilitation costs	879	6,904	734	5,669	2,277
Operating costs					
Operating and maintenance expenses for one mine	606	677	431	1,005	972
Administrative expenses	65	–	49	26	95
Emergency costs	114	–	884	87	91
Total	**1,664**	**7,581**	**2,098**	**6,787**	**3,435**

With respect to the inspections that the Ministry does conduct, follow-up action is often not timely. For example, 29 inspections completed in 2014 on privately held mines identified 17 that required follow-up action. Issues identified during these inspections included broken fencing, unprotected open surfaces such as shafts and vent raises, tailings areas that had not been re-vegetated in accordance with the related code, chemical and physical instability of ore stockpile, and unauthorized changes on a site that could destabilize a tailings area.

As of May 2015, none of the issues identified in the 17 inspection reports had been resolved. In fact, the Ministry had not followed up with 10 of the 17 private owners after the inspection reports were mailed to them. The Ministry indicated the lack of follow-up was due to multiple internal staffing changes that led to it falling behind on inspection-related activities.

Under the *Mining Act*, if the private owners do not comply with the requested rehabilitation work identified by site inspections, the Ministry has the authority to issue orders to private owners to enforce compliance and to lay charges if the private owners do not comply. Failure to comply with an order can result in a fine of $30,000 a day and/or imprisonment for up to two years.

However, the Ministry has rarely exercised this authority, relying more on voluntary compliance by the private owners. In the past five years, only three such orders were issued by the Ministry to force private owners to undertake rehabilitation work or to submit a closure plan, and only one charge was laid, resulting in a fine of about $10,000.

In 2000, as part of its update to the *Mining Act*, the Ministry began requiring private owners to take all reasonable steps to progressively rehabilitate mines, including abandoned mines on their sites, and to report such activities to the Ministry within 60 days of completing the work if the work is not already covered in a closure plan.

A review of the abandoned mines database showed that only 45 rehabilitation reports had been submitted as of May 2015 for the nearly 2,000 abandoned mines in private hands. The Ministry is unaware of whether any rehabilitation work has been done on those sites it had not inspected, or those where no rehabilitation reports were received from the private owners.

The Ministry informed us that private mine owners are not always aware of the responsibility to rehabilitate their sites and submit rehabilitation reports. Although it is aware of this, the Ministry has not done everything it could to build awareness of the requirement to rehabilitate abandoned mines.

We noted British Columbia took a more proactive approach to promote compliance with its rehabilitation requirements by performing outreach activities, conducting media campaigns, and developing guidelines and education materials to increase awareness, educate, and motivate voluntary compliance.

RECOMMENDATION 9

To protect public health and safety and the environment from the risks posed by abandoned mines, the Ministry of Northern Development and Mines should:

- as soon as possible inspect all high-risk abandoned mines that have not been inspected in the last five years to determine if these sites pose risks to public safety;
- adopt a risk-based process to regularly monitor and inspect previously inspected abandoned mines to ensure that the conditions at the sites are not posing a risk to human health or the environment (we made a similar recommendation in our *2005 Annual Report*); and
- develop an operational and financial short- and long-term plan to clean up mine sites posing a threat to human health and safety or the environment (we made a similar recommendation in our *2005 Annual Report*).

MINISTRY RESPONSE

Based on our current prioritization system, the Ministry will develop a plan to inspect high-risk abandoned sites that have not been inspected in the last five years.

The Ministry has adopted a risk-based process to inform our inspection schedule for abandoned mine sites. The Ministry will ensure these previously inspected mines are regularly monitored and inspected.

In addition, the Ministry develops short and long-term plans for our high-priority sites based on our annual budget allocation. The Ministry will continue to develop operational and financial short and long-term plans to clean up the highest priority mine sites that pose a threat to human health and safety or the environment.

RECOMMENDATION 10

To ensure that the owners of privately held abandoned mines take all reasonable steps to reduce potential health and environmental risks, the Ministry of Northern Development and Mines (Ministry) should:

- **take timely follow-up actions to ensure that private owners are complying with ministry inspection results; and**
- **develop a strategy to make private owners aware of the requirement to rehabilitate abandoned mines on their land.**

MINISTRY RESPONSE

The Ministry will review processes for following up on inspection-report compliance and will take appropriate action.

The Ministry will also develop a strategy to increase private owner awareness of the requirements to rehabilitate abandoned mines on their land.

4.5.3 Information Reported in Ministry's Abandoned Mines Information System Is Incomplete and Outdated

The Abandoned Mines Information System (AMIS) was developed and implemented in 1988/89 to create a centralized way to track all abandoned mines in Ontario.

The purpose of AMIS is to capture data about all known abandoned mine sites and their associated hazards so that the Ministry can prioritize these sites for rehabilitation. In addition, AMIS was to allow the Ministry to track any activities undertaken on the sites—including any updated site assessment work, changes to the known hazards, identification of new hazards—and the progress of any work undertaken at the sites.

However, we noted in our review of the AMIS a number of limitations that impede its full utilization for the intended purposes:

- *Information in the system is outdated.* The information on abandoned mines within AMIS comes primarily from site assessments completed in 1993 and 2000 on all then-known sites. Since then, the Ministry has not undertaken another comprehensive assessment to update the information in the system. Information updates to the system have generally come from the limited inspections conducted by the Ministry, a special-purpose site assessment completed in 2003 on 86 high-risk sites with tailing dams, and another assessment in 2008 on 95 high-risk sites with tailings.
- *A key system functionality is not producing accurate information.* Although AMIS can rank the sites according to a public safety and environmental score, this capability is not functioning properly and is therefore not used. There is an error in the system formula so that the score is not calculated properly, rendering the scores unusable. As a result, the Ministry has to maintain separate tracking of the sites outside of the system. This prevents

the Ministry from efficiently determining the rehabilitation priority of each abandoned mine.

Without complete and accurate information on the mine sites, it would be difficult for the Ministry to effectively manage the rehabilitation of abandoned mines in Ontario.

RECOMMENDATION 11

The Ministry of Northern Development and Mines should:

- update the information on abandoned mines in Ontario and their associated mine hazards in its Abandoned Mines Information System (AMIS); and
- improve the functionality in AMIS to identify sites for rehabilitation that pose the greatest risk to public health and safety, and to the environment.

MINISTRY RESPONSE

The Ministry will update the information on abandoned mines in AMIS.

In addition, the Ministry will work to improve the prioritization functionality in AMIS. However, until an upgrade is completed, we will continue to use our manual prioritization process.

4.6 Provincial Revenue from Mining Low in Relation to Significant Value of Mineral Resources Extracted

4.6.1 Ontario Has One of the Lowest Mining Profit Tax Rates in Canada

The amount of mining taxes and royalties that the province has collected from mining companies over the last 20 years has averaged less than 2% of the value of minerals extracted.

Ontario mining profit tax is levied at a rate of 10% (down from 20% in 2000) on annual taxable profits in excess of $500,000 (corporations with substantially common ownership cannot use the same deduction). A reduced rate of 5% is applied to remote mines in Northern Ontario opened after May 7, 1996, and certified by the Ministry as remote.

In addition, new mines, or those undergoing major expansion, are eligible for a mining tax exemption on up to $10 million of profit earned in the first three years for a non-remote mine and in the first 10 years for a remote mine.

This tax regime has been in place since 2004, and is now one of the lowest in Canada. According to a 2013 University of Calgary research paper and its addendum, updated to 2015, Ontario's marginal effective mining tax rate was only 5.6%, considerably lower than the national average of 8.6%, as of September 2015.

In 2012, a review commissioned by the government on the Reform of Ontario's Public Services noted that while the low mining tax rates were designed to encourage investment in the province when corporate tax rates were high, there has since then been significant improvement in Ontario's international tax competitiveness. The review also stated that the provincial resource tax credit provided to mining companies, calculated as 25% of adjusted resource profits, is unnecessary given the improved taxation environment and should be eliminated.

In its 2015 Budget, the Ontario government proposed to harmonize with the federal government and other provinces by eliminating the Ontario Resource Tax Credit and the Additional Tax on Crown Royalties, and instead provide a deduction for royalties and mining taxes actually paid, effective April 23, 2015. The government expects to receive additional revenue of $6 million to $7 million per year for at least the next three years as a result of this change. Even with this additional revenue, however, Ontario's mining tax rate remains one of the lowest in Canada.

Ontario Has Collected Low Royalties from Province's Only Diamond Mine

Under the *Mining Act*, all diamond mines in Ontario are subject to royalty payments as prescribed in *Ontario Regulation 323/07 – Royalty on Diamonds*. The royalty is calculated on the net profits of the mine less allowed deductions for exploration, development and operating expenses, and it mostly parallels diamond royalty structures in the Northwest Territories and Nunavut, the two other Canadian jurisdictions with diamond mines. However, the province also has a number of deductions that the other jurisdictions don't offer, including:

- 100% deduction for qualifying expenditures made under agreements with local or Aboriginal communities;
- 100% deduction for qualifying donations in Ontario of a charitable, educational or benevolent nature; and
- an additional 15% allowance for the cost of establishing and operating a diamond mine, limited to 20% of annual net profit.

The Ministry of Finance has stated that these additional deductions are designed to encourage the long-term sustainability and global competitiveness of diamond production in Ontario, and to support investments in diamond mining communities, particularly in northern and Aboriginal communities. The province has not undertaken a formal assessment of its current diamond royalty regime since it was introduced in 2007 to determine its benefits and whether it should continue its current system.

Ontario's sole operating diamond mine opened in 2008. The mining company had extracted over $2.5 billion worth of diamonds up to 2014, but paid under $20 million in royalties to the province, representing less than 1% of the value of diamonds extracted. In calculating its royalty payments, the mining company claimed almost $70 million of Ontario-specific deductions as allowed under the *Mining Act*. The Ministry of Finance has indicated that starting in 2014, higher royalty payments are expected because the mining company will have used up most of its available deductions in calculating the royalty payments. However, the mine is expected to be depleted by 2019, leaving only six years of potentially higher royalty payments. As of October 2015, the Ministry expects to receive a royalty total of 4–5% of the production value over the life of the mine.

Ontario Mining Lease Rates among Lowest in Canada, and Collection Not Always Enforced

Mining companies are required to pay mining land taxes on private land and rental fees for mining leases and licences on Crown land.

Ontario Regulation 45/11 – General prescribes the annual rental rates for mining leases/licences and mining land-tax rates. The Ministry collects approximately $3.1 million in rental fees and land taxes annually, and deposits them into the province's Consolidated Revenue Fund.

The current rates shown in **Figure 10** were last revised in 1994. In 2014, the Ministry completed a

Figure 10: Rental Rates and Mining Land Taxes

Source of data: Ministry of Northern Development and Mines, December 2014

Type of Land Tenure	# of Holders	Land Volume (hectares)	Rate (cost/hectare) per Year
Unpatented mining claims	33,930	3,770,128	None. Requires $400 of assessment work to be performed annually per claim
Patented mining claims	18,864	467,745	$4/hectare
Mining leases	3,097	256,000	$3/hectare
Mining licences of occupation	1,047	20,000	$5/hectare

jurisdictional scan of rental rates for mining leases across Canada, and found that Ontario's rate is the second-lowest in Canada after Prince Edward Island. The Ministry informed us that as part of the Mining Act Modernization, a new fee schedule was to be developed in fall 2015.

If payments of rents or taxes are not made, the Ministry has the right under the *Mining Act* to declare the privately owned land forfeit and to terminate the mining leases and licences. However, we noted that the Ministry has not taken timely action on collecting outstanding payments.

As of March 31, 2015, accounts receivable related to rent and taxes totalling $1.7 million had been in arrears over two years. The Ministry informed us that some of these properties have not been forfeited because of liabilities associated with mine hazards on the land.

Liabilities on these sites range from $150,000 to $850,000, which the Ministry would have to assume if the properties are forfeited to the Crown. The Ministry issued an order in 2013 for the submission of a closure plan on only one of these properties, and was still waiting for voluntary compliance from the others at the time of our audit.

Some of these arrears have been outstanding for more than 10 years. When the Ministry does not forfeit these claims, it means these lands are not available to any other prospectors for potential mining development.

RECOMMENDATION 12

To ensure that Ontarians receive a fair share of the province's mineral resources while remaining competitive to attract mining investments to the province, the Ministry of Northern Development and Mines should:

- review and update where necessary the province's current mining lease rate, mining profit tax, and diamond royalty regimes (we made a similar recommendation relating to mining fees in our *2005 Annual Report*); and
- take timely collection actions for amounts owing that are in arrears (we made a similar recommendation in our *2005 Annual Report*).

MINISTRY RESPONSE

The Ministry appreciates the Auditor General's review of the diamond royalty regime. The Ministry expects the diamond royalty modelling over the life of a mine to have larger future payments. The Ministry is considering the modernization of all fees and revenues related to mining, including working with the Ministry of Finance where necessary.

The Ministry will also review processes for following up on delinquent accounts to ensure more timely collection.

4.7 Performance Measures Do Not Address Ministry Goals and Responsibilities

The goal of the Ministry's Mines and Minerals Program is to build a provincial minerals sector that is healthy, competitive and sustainable. The *Mining Act* requires the development of mineral resources to be carried out in a manner consistent with the recognition and affirmation of existing Aboriginal and treaty rights, including the duty to consult, and to minimize the impact of mining activities on public health and safety and on the environment. In addition, the 2014 mandate letter from the Premier to the Minister of Northern Development and Mines specifically identified promoting Ontario's mining sector and developing the Ring of Fire as two of its key priorities.

While the Ministry has some indicators to assess certain aspects of the operations of the program (for example, percentage of sites with closure plans inspected, and abandoned mine sites rehabilitated annually), it has yet to develop indicators to help it assess its effectiveness in achieving its overarching goals and objectives.

RECOMMENDATION 13

The Ministry of Northern Development and Mines should develop more comprehensive measures to assess its effectiveness in meeting its goals of developing the province's mining sector, while minimizing the impact of development on public health and safety, and on the environment, and regularly report to the public its progress in meeting its goals (we made a similar recommendation in our *2005 Annual Report*).

MINISTRY RESPONSE

The Ministry is currently developing new comprehensive performance measures for all of its programs. It is also developing performance measures specifically related to the Mineral Development Strategy. These indicators will measure the progress of developing the province's mineral sector.

Appendix 1—The Mining Sequence

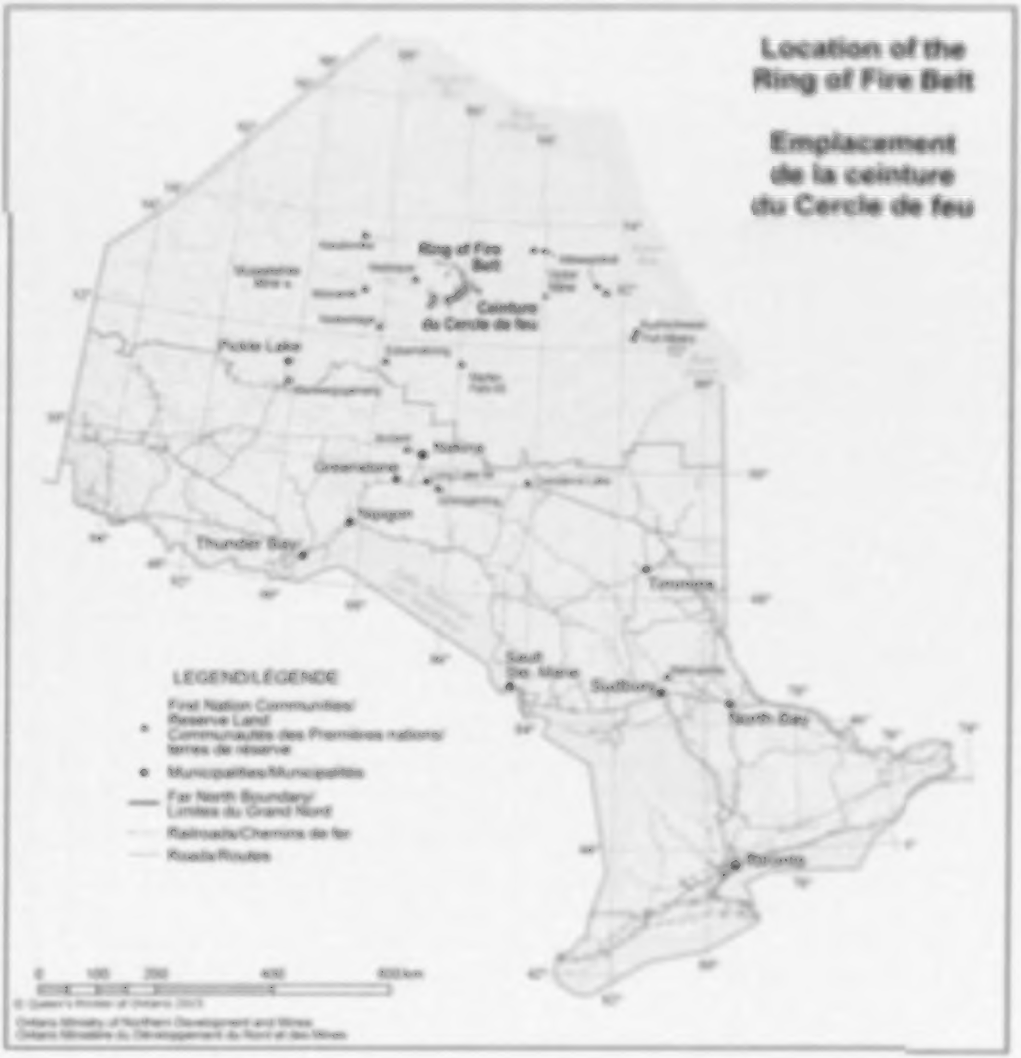
Source of data: Ministry of Northern Development and Mines

In general, there are five stages in mining: exploration, evaluation, development, production, and closure and monitoring. These stages can take from 30 to over 100 years to complete.

Stage	Description of Activities
Exploration	• Prospectors analyze an area of land to find mineral deposits and acquire the rights to further explore for mineral deposits • Prospectors stake an area and conduct early exploration work, such as collecting rock samples, remote sensing, and accessing the Ministry's geosciences database, to seek out potential deposits • Usually takes 4–6 years
Evaluation	• Prospectors use larger-scale exploration methods, such as more intense drilling and removing larger samples, to test for mineral potential • Advanced exploration can cost anywhere from $5 million to over $10 million per project each year and stretch over a period of 5–10 years • The majority of exploration projects do not get past this stage
Development	• Companies construct a mining facility and the infrastructure to support it • Can take three or more years to complete and is the most expensive stage of the process
Production	• Companies produce minerals or mineral-bearing substances for sale • The main activities during this stage include excavating earth and rock, separating mineral from the waste rock, managing waste materials (known as tailings), and monitoring environmental conditions • A mine can be in operation 10-50 years or longer • This is the only stage in the process that generates revenue and provides the most jobs and other economic benefits for the province
Closure and Monitoring	• Companies complete mineral extraction, processing and transportation activities, and remove site facilities and the infrastructure that supported these activities • Depending on the size and extent of the clean-up, closure costs can run more than $150 million, and can typically take 2–10 years or more to complete • After closure, some mines require continuous monitoring for 5–100 years to ensure no damage is being done to the environment

Appendix 2—Location of the Ring of Fire Belt

Source of data: Ministry of Northern Development and Mines


Location of the Ring of Fire Belt
Emplacement de la ceinture du Cercle de feu
Ring of Fire Belt
Ceinture du Cercle de feu
Pickle Lake
Nakina
Greenstone
Nipigon
Thunder Bay
Timmins
Sault Ste. Marie
Sudbury
North Bay
Toronto
LEGEND/LÉGENDE
First Nation Communities/Reserve Land
Communautés des Premières nations/terres de réserve
Municipalities/Municipalités
Far North Boundary/Limites du Grand Nord
Railroads/Chemins de fer
Roads/Routes
0
100
200
400
600 km
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Ontario Ministry of Northern Development and Mines
Ontario Ministère du Développement du Nord et des Mines

Chapter 3

Ministry of Community and Social Services

Section 3.12 SAMS—Social Assistance Management System

1.0 Background

1.1 Social Assistance in Ontario

Social assistance helps people who are in need because they are unemployed and/or have disabilities. It provides:

- financial aid;
- health benefits;
- access to basic education; and
- counselling, training and workshops to help people find and keep a job.

The overall objective of social assistance is to help people become as self sufficient as possible. Programs are funded and administered by the province and municipalities.

To help improve the administration and delivery of social assistance, the Ministry of Community and Social Services (Ministry) replaced its old information technology system in November 2014 with a new system known as the Social Assistance Management System (SAMS).

About 11,000 ministry and municipal personnel have to rely on SAMS to help them deliver social assistance to approximately 900,000 of the most vulnerable members of society across Ontario. These personnel rely on SAMS to, among other things:

- determine an applicant's eligibility for social assistance;
- calculate and distribute about $6.6 billion in annual social benefit payments;
- automatically generate letters that are mailed to people to inform them about their social assistance eligibility or about changes to their social benefits; and
- generate reports that provide the information that municipalities and the Ministry need to manage social assistance programs.

1.1.1 Three Social Assistance Programs in Ontario

In Ontario, three programs provide social assistance: Ontario Works, the Ontario Disability Support Program (ODSP) and Assistance for Children with Severe Disabilities (ACSD) (because the Ministry combines information on the latter two programs in much of its reporting, we do the same in this report and include information on ACSD in our discussions of ODSP).

Ontario Works

The *Ontario Works Act, 1997* and its regulations govern the delivery of Ontario Works. Eligible people receive Ontario Works support and services from 238 municipal offices across the province, in partnership with the Ministry of Community and Social Services (the Ministry).

To be eligible for Ontario Works, a person's net assets, apart from their home and motor vehicle, must be worth less than $2,500 if the person is single and $5,000 if the person has a spouse.

Also, a person needs to try to find and keep a job, and participate in activities designed to help him or her do so (such as workshops and programs that help the person finish high school).

Recipients of Ontario Works financial aid receive basic needs and shelter allowances. Other financial assistance is provided to eligible clients through specific types of benefits, usually provided monthly (examples include the Pregnancy and Breast-feeding Nutritional Allowance and the Special Diet Allowance). Clients are also reimbursed for certain expenses, such as employment-related expenses. Benefits are taxable; reimbursements are not.

The total number of Ontario Works clients as of September 2014, before SAMS was launched, was about 447,000. As per the Public Accounts of Ontario, a total of $2.6 billion was paid to clients in the year ending March 31, 2015.

Ontario Disability Support Program (ODSP)

The *Ontario Disability Support Program Act, 1997* and its regulations govern the delivery of ODSP. Eligible people receive ODSP support and services from 45 Ministry offices throughout the province.

To be eligible for ODSP, a person must have a substantial physical or mental impairment that has lasted for at least one year. The impairment must restrict the person from at least one daily living activity. Also, the person's net assets, apart from their home and motor vehicle, must be worth less than $5,000 if the person is single and $7,500 if the person has a spouse.

Like Ontario Works clients, ODSP clients may also receive a number of other specific benefits and may be reimbursed for specific expenses. For example, they receive compensation for mobility devices, hearing aids and any other devices or medications that they need because of their condition.

In the year ending March 31, 2015, the Ministry paid a total of $4.4 billion to ODSP clients. As of September 2014, before SAMS was launched, a total of about 479,000 clients were enrolled in ODSP (including approximately 30,000 children with severe disabilities).

1.1.2 Role of Caseworkers

About 11,000 front-line personnel, most of whom are called caseworkers, provide a full range of Ontario Works and ODSP services. Caseworkers have to rely on SAMS on a daily basis to help them provide these services, which we describe later in this section. Their ability to provide Ontario Works and ODSP is highly dependent on how well SAMS functions and supports them. In other words, for caseworkers to have sufficient time to help their clients, SAMS should:

- correctly determine clients' eligibility for social assistance;
- accurately calculate and distribute social benefit payments; and
- automatically generate letters accurately informing clients of their eligibility and the amounts to which they are entitled, plus other documents.

At the same time, SAMS should have controls to ensure that clients' information is protected and that the amount of risk of fraud and abuse of social assistance programs is as low as possible.

SAMS should also be easy to use—that is, it should be designed with caseworkers' needs in mind. Necessary features include, for example, a reminder for caseworkers of upcoming daily tasks they need to accomplish so that they can ensure their clients are adequately looked after.

Ontario Works Caseworkers

People seeking help from Ontario Works can apply online, in person at an Ontario Works office or by phone.

The Ontario Works caseworker's responsibilities begin when an applicant makes contact to schedule an in-person meeting. At that meeting, the caseworker begins the process of determining if the applicant qualifies for assistance. If the applicant does qualify and becomes a client, the caseworker continues to meet regularly with him or her to help the client find and keep a job. The caseworker will also:

- create a formal plan that sets out employment activities the client will be involved in and for how long;
- adjust the plan as the client progresses and as the client's circumstances change; and
- discuss other programs and supports that can help the client.

The caseworker also reviews the client's financial status and information.

Caseworkers have a number of other responsibilities. For example, they attend hearings when clients dispute their entitlements and they recover overpayments from former clients.

ODSP Caseworkers

People seeking help from ODSP also can apply online, in person at an ODSP office or by phone. These individuals have physical or mental impairments that, to varying degrees, can impact their ability to be involved in the workforce. Some are able to work; some with more severe impairments find it difficult or impossible to work.

An ODSP caseworker's role varies depending on the particular impairments his or her clients have. If a qualified applicant's impairment is not severe, the caseworker will meet more frequently with the client and develop a structured employment plan. Caseworkers may meet less regularly with clients who have more severe impairments, as these clients receive benefit payments on a regular schedule through their enrolment in ODSP. Most ODSP caseworkers therefore have higher caseloads than most Ontario Works caseworkers.

The ODSP caseworkers' main responsibilities are processing their clients' social benefit payments and calling clients to check on them and reconfirm their eligibility. Most ODSP clients are unaware of all the ODSP benefits available, so caseworkers often reach out to their clients with this information. Their disabilities are confirmed by their physician or another professional at the application stage. Because most ODSP clients have long-term disabilities, there is no regular reassessment of their eligibility.

1.2 Management of Social Assistance Information

1.2.1 Prior Information Management System Used Between 2002 and 2014

The information management system used between 2002 and 2014 was called Service Delivery Model Technology ("previous system"). We audited the Ontario Works program in 2002 (see our *2002 Annual Report*) and noted the following with regard to the previous system that had been implemented at that time:

- Caseworkers reported that the system was not easy to use—it had not been designed with their needs in mind.
- The Ministry did not adequately test the system before launching it.
- It could not accurately determine client eligibility and benefit amounts.
- It could not generate certain reports to provide the information needed for decision makers.
- It did not include adequate controls against fraud.

When we audited ODSP for our *2004 Annual Report*, we found the Ministry had made many changes to the previous system to ensure that it produced consistent and correct information. However, we found that the previous system still "lacked key internal controls, still did not meet certain key information needs of ministry users and recipients of disability support payments, and continued to generate errors and omit information for reasons that could not be explained."

We again audited both Ontario Works and ODSP for our *2009 Annual Report*, and reported that "despite improvements to the Ministry's Service Delivery Model Technology information system since its rollout in 2002—many of which were intended to enhance reliability as well as the completeness and accuracy of its information—the system continues to have reliability concerns and known deficiencies."

1.2.2 New Information management System Implemented in 2014

Approval and Development of SAMS

In 2009, the Ontario government embarked on an initiative to modernize aging computer technology across the government. The Ministry identified the previous social assistance system as high risk and a priority for modernization. It noted that, among other things, the system's design was not effective. In addition, the system itself was based on outdated technology and so could not adequately support the business and policy changes coming into effect for social assistance.

The Ministry's business case stated that the most economical and effective way to "modernize" the previous system would be to replace it with a new "commercial off the shelf" system. In other words, it would look for a commercially available system that it could buy as is, and then customize to meet its business needs.

The government approved the Ministry's business case in 2009 and provided $202.3 million in funding, with a deadline of March 2013 to launch SAMS, the new system.

The Ministry set up a competition for commercial off the shelf systems, and the Curam Case Management System won in December 2009. This software cost significantly less than estimated in the business case, and as a result, the overall project budget was reduced to $164.9 million in February 2010.

The Ministry worked with Curam and caseworkers to establish SAMS' business requirements. SAMS' development was divided into four parts:

- **Customization of the Curam Case Management System**—this was done by Curam consultants.
- **Reporting features**—this was done by the Ministry.
- **Automatic letters generation feature**—this was done by the Ministry.
- **Interfaces (connections with other computer systems)**—this was done by IBM consultants.

In addition to the software, the Ministry purchased hardware, such as servers to store data, and central processing units to process the data, both from IBM.

Launch Strategy

Late in 2010, the Ministry decided that a "big bang" launch would be the best way to implement SAMS. This meant that, overnight, SAMS would completely replace the previous system.

Such an implementation is risky. For instance, if from the moment of launch SAMS does not work, or caseworkers do not know how to use it, vulnerable clients who depend on benefits might not receive the money they need to meet basic living expenses such as food and shelter. The Ministry was aware of this significant risk but planned to minimize it by thoroughly testing SAMS to ensure it worked correctly and by training caseworkers in advance.

Since the previous system would no longer be in use when SAMS was launched, this meant that the vast amount of data in the previous system would have to be transferred into SAMS. To minimize the disruption to Ontario Works and ODSP, the transfer would have to occur in as brief a time as possible.

The Ministry contracted with IBM to convert two years of client data from the previous system and transfer it into SAMS, and it procured training materials from IBM to train caseworkers.

Deciding When to "Go Live"

Planning when to launch an information system, and then deciding if the system is really ready to "go live," are crucial decisions. Launching a system that is not ready can create havoc for the service delivery that the system was designed to facilitate and improve. This risk was especially worrisome in the case of SAMS because that havoc would affect the lives of over 909,000 of the most vulnerable members of society.

The launch date was changed several times because of delays and issues. In October 2014, working toward a launch date of November 2014, the Ministry followed a formal process to assess whether:

- SAMS had been sufficiently tested;
- hardware had been configured, software was working correctly, and all data was ready to be transferred; and
- resources were in place to support caseworkers and manage SAMS after launch.

The Ministry concluded that SAMS was ready, and launched it in November 2014, about a year later than originally planned and about $40 million over budget. At launch, SAMS had serious defects that caused numerous errors. We explain what happened, and why, in the following sections of this report.

When we completed our audit, the Ministry was still in the process of trying to fix the defects and get SAMS working properly. At that point, the Ministry informed us that this will cost about an additional $52 million (some of which has already been spent) on SAMS since launch, in addition to the $238 million spent before launch, for a total of about $290 million. As the Ministry does not anticipate SAMS will become fully stable until spring 2016, the final cost of SAMS will remain unknown until that time.

2.0 Audit Objective and Scope

The objective of our audit was to assess whether the Ministry of Community and Social Services (Ministry) had effective systems and processes in place to ensure that:

- the development and implementation of the Social Assistance Management System (SAMS) was planned and managed economically, effectively and efficiently, and in compliance with applicable policies and requirements; and
- SAMS was adequately supporting the economical and efficient administration and delivery of Ontario's social assistance programs.

Senior management of the Ministry reviewed and agreed to our objective and associated audit criteria.

Our audit work was predominantly conducted at the offices of the Ministry, where we interviewed key personnel, including private-sector consultants who worked on SAMS. We also examined pertinent documents and visited six representative Ontario Works offices and three representative Ontario Disability Support Program offices. These offices are located throughout the province, and all use SAMS to support the administration and delivery of social assistance programs. We met with and interviewed front-line workers to obtain their perspective and concerns about SAMS.

We also met with representatives from the Ontario Public Service Employees Union and the Canadian Union of Public Employees, which represent the approximately 11,000 front-line workers who use SAMS daily. We surveyed all Ontario Works offices to estimate the additional costs incurred by municipalities since SAMS was implemented.

We interviewed senior government officials who were part of the committee that made the decision to launch SAMS, and we researched the use of Curam software and IBM services by government organizations in other jurisdictions.

In addition, our audit included a review of relevant audit reports issued by the province's Internal Audit Division. These reports, the last of which was issued in November 2013, were helpful in determining the scope and extent of our audit work. (We discuss the involvement of the Internal Audit Division in SAMS in **Section 4.4.5**).

We completed our fieldwork at the end of July 2015.

3.0 Summary

Data issues, defects and delays derailed the well-intentioned efforts of the Ministry of Community and Social Services (Ministry) to modernize social-assistance delivery with a new high-performing information-management system.

The Social Assistance Management System (SAMS) was not properly piloted or fully tested during its development. Tests that were done yielded results that were below expectations. The Ministry launched anyway because it considered the risks of delaying the launch greater than the risks of launching a system that was not fully ready. Further, the decision to launch was based on incomplete and inaccurate information about SAMS' readiness.

As of October 2015, the consequences of launching a defective system so far included a total of about $140 million in benefit calculation errors (consisting of $89 million in potential overpayments and $51 million in potential underpayments) generated by SAMS and the issuance of many letters and tax information slips with incorrect information, some of which may never be resolved. In addition, staff spent much of their time performing "workarounds" to deal with complex errors that SAMS was generating, and so spent less time serving clients. SAMS still cannot generate reports with accurate information, which affects the ability of the Ministry and municipalities to administer Ontario Works and Ontario Disability Support Program. SAMS is also vulnerable to fraud.

The Ministry launched SAMS in a way that makes it impossible to return to the previous system. Since the Ministry must salvage SAMS, it is crucial that it prioritize the allocation of resources to fixing it. Until the issues are resolved, it remains unknown whether SAMS will perform better than the previous system. More importantly without a correctly functioning system, caseworkers cannot provide adequate social service to over 900,000 clients.

Before SAMS was launched in November 2014, the Ministry spent $238 million to develop it, and about $11 million to support its implementation. Since launch, the Ministry estimates it will spend an additional $41 million up to March 2016 on SAMS for a total cost of about $290 million. As the Ministry does not anticipate SAMS becoming fully stable until spring 2016, until such time, the final cost of SAMS will remain unknown.

The following are some of our key observations:

- **The Ministry had yet to identify many defects, and was not fully testing its software upgrades that fix defects**—As of July 31, 2015, there were 771 serious defects outstanding in SAMS. This number is not complete, however, because many defects had yet to be identified. Furthermore, the Ministry had not made fixing defects a priority. Specifically:
    - The Ministry had a backlog of about 11,500 calls from the help desk that it had not yet reviewed. There was also an additional backlog for processing calls to other help lines. Callers to help lines bring potential new defects in SAMS to the attention of the Ministry. The Ministry also had a backlog in reviewing 439 problems identified through these calls, most of which could end up as defects needing to be fixed.
    - It took the Ministry an average of 40 days to fix a serious defect. Only external consultants, rather than ministry staff, had the skills to fix serious defects, but they were

  spending less than half of their time (44%) doing so.
  - The Ministry told us in August 2015 that it had fixed a certain defect that makes SAMS vulnerable to fraud. However, caseworkers showed us that this defect was in fact not fixed and SAMS was still vulnerable to fraud when we completed our audit.
  - The Ministry had installed software upgrades to fix defects but was not fully testing them. This was partly because it did not know how to test them—just prior to launch, the Ministry did not renew contracts with certain consultants who would have been the most effective in testing the fixes. In July 2015, the Ministry hired eight new consultants to work on fixes but estimated it would take about six months for these new consultants to reach the same level of knowledge as the consultants who had been let go.
- **SAMS is still not functioning properly**—Until most of the serious defects are identified and fixed, and software upgrades are properly tested, SAMS will continue to generate errors. Until defects are dealt with, problems will persist, and SAMS will remain difficult to use, will continue to generate incorrect eligibility determinations and benefit payments, will continue to generate inaccurate reports that the Ministry and municipalities need to properly manage Ontario Works and Ontario Disability Support Program, and will lack controls for reducing the risk of fraud. In addition, caseworkers will continue to have to use time-consuming "workarounds" to deal with these problems.
- **The Executive Committee assumed significant risk when it decided to launch SAMS**—The Executive Committee understood that SAMS did not meet the launch criteria developed by the Ministry and assumed the risk that this entailed. It also understood that the following other requirements for launch (not included in its launch criteria) had not been met and also assumed the risk that this entailed:
  - Pilot testing with data converted from the previous system was never conducted, so it was not known if SAMS would work as fully intended when launched.
  - Sixteen per cent of SAMS' functions were not tested, and the failure rate of functions that were tested was one in eight.
  - Only some of the government-mandated payment testing was conducted, and many serious payment-related defects were found after launch. According to the Office of the Provincial Controller, SAMS is the only computer system ever connected to the government's accounting system without passing the government-mandated payment testing.
- **The Executive Committee was not aware of the full extent of SAMS' pre-launch issues**—While the Executive Committee knowingly assumed risks of SAMS not meeting the launch criteria and other requirements, its decision to launch SAMS was not based on complete information because the project team did not tell the Committee about the following with respect to SAMS' readiness:
  - that the actual number of serious defects it contained was in fact higher;
  - that less user acceptance tests were actually conducted and their results were lower;
  - that some of the interfaces were not tested;
  - that payment comparisons between SAMS and the previous system was never done for the daily-pay-runs; and
  - that converted data was not fully tested.
- **Questionable shift in roles and reporting relationships, lack of Internal Audit involvement, in critical period up to SAMS' launch**—In the six months before launch, the testing team's reporting relationship was abruptly changed and started to report to the Business Project Director instead of

the Technical Project Director, as it had been doing. The Business Project Director had no IT background and limited technical expertise. As a result, the Technical Project Director's expertise surrounding testing was not considered when SAMS' readiness was assessed and the decision to go live was made. During this same time, the Ontario Internal Audit Division (Internal Audit) proposed an audit of SAMS' readiness four months before launch. However, as Internal Audit and SAMS' project leads could not agree on the scope of the audit, it was not done. The Ministry also stated that an audit of SAMS' readiness was unnecessary, given the expertise of the IBM consultants preparing it for launch.

- **IBM was unable to correctly convert data from the previous system on time, and this delayed SAMS' launch**—One project requirement for SAMS was that all client data in the previous system, going back two years, be transferred into SAMS. The Ministry chose IBM for the task of converting the data into a format SAMS could use. IBM failed to meet its deadline on three occasions, and the Ministry extended the deadlines three times. It is true that the Ministry revised its requirements for SAMS on several occasions, while IBM was still doing its work, and this posed challenges for the data-conversion process. In any case, because of the delays, there never was an effective pilot of SAMS using the converted data; the Ministry had to push back the launch date three times, and the project budget rose to $242 million from $202.3 million. IBM finally delivered the data in April 2014 and at launch, there were about 114,000 errors in the data that caused SAMS to generate incorrect results for client eligibility and benefit payments.
- **Ministry should have overseen consultants; instead, consultants oversaw other consultants through most of SAMS' development**—The Ministry did not properly oversee Curam and IBM consultants. It relied on the consultants not only to design and develop most of SAMS, but to also oversee their own work. Consultants billed an average hourly rate of $190. They were overseen by other consultants who were paid daily rates as high as $2,000. Many consultants took much longer than anticipated to complete their work, and in some instances billed for time spent on fixing errors in their own work. The Ministry's budget for Curam's consultants more than doubled, from $14 million in the original budget to $32 million at launch. The vagueness in consultants' time reporting, and the lack of independent oversight during much of the project, made it difficult to assess how efficiently consultants were working.
- **Ministry training of staff inadequate**—The Ministry provided online SAMS user training between January and May 2014. Caseworkers told us that the training program repeatedly shut down without warning and had many errors. Over half of the caseworkers who completed a survey at the end of the program said they did not feel confident they would be able to use the system for complex real-life situations, and one-third said they did not feel confident they could process the data for every-day tasks. After launch, about 80% of Ontario Works and Ontario Disability Support Program offices reported that caseworkers had to deal with many problems sparked by SAMS, and that there were significant issues with staff morale. Almost one-quarter of these offices reported that they were "unable to continue operations without additional support."

This report contains five recommendations, consisting of 12 actions, to address the findings noted during this audit.

OVERALL MINISTRY RESPONSE

The Ministry values the work of the Auditor General and appreciates the advice on how to improve the Social Assistance Management System (SAMS) and future implementations of technology solutions. We agree with all the recommendations and will implement them as outlined in the following responses.

There was a critical need to replace the Service Delivery Model Technology (SDMT), the old computer system that managed social assistance. As the Auditor pointed out in 2009, SDMT had security and control issues. The 14-year old system was unstable, at high risk of failure and had to be replaced.

The Ministry acknowledges that the implementation of SAMS was more challenging than anticipated. We continue to make progress in addressing technical issues and improving the system. In addition, front line staff and delivery partners are working hard to ensure that social assistance clients continue to be well served. Throughout implementation, the Ministry focused on ensuring clients received the support to which they are entitled. As impacts to productivity were anticipated, the Ministry implemented workload mitigation strategies which put on hold certain activities with less direct client impact to ensure social assistance clients continued to be served. We are grateful to front-line staff for maintaining high quality customer service.

In early 2015, the Ministry commissioned an independent review by PricewaterhouseCoopers (PwC) to provide recommendations and advice on how best to move forward. The Ministry incorporated all of PwC's recommendations in the Integrated Transition Plan for SAMS, and in a recent report, PwC confirmed that the plan will effectively position the Ministry to achieve its business recovery objectives.

We appreciate the opportunity to respond to the Auditor General's recommendations and the Ministry is committed to ensuring that SAMS provides the necessary foundation to transform and modernize social assistance service delivery. We will continue working closely with municipal delivery partners on the ongoing improvement of SAMS.

4.0 Detailed Audit Observations

The Social Assistance Management System (SAMS) launched in November 2014 had serious defects and was not fully functional. **Section 4.1** describes the condition of SAMS at the time we completed our audit. **Section 4.2** describes the progress the Ministry of Community and Social Services (Ministry) had made after launch to fix it. **Section 4.3** explains what went wrong throughout project development. **Section 4.4** presents our concerns with the decision to launch SAMS in the condition it was in.

4.1 SAMS Defective at Time of Launch

At the time it was launched, SAMS contained about 2,400 serious defects that caused many different types of errors in clients' eligibility for benefits and the payments they received. Some of these errors were difficult for caseworkers to identify and correct. These defects were mainly due to poorly programmed software and incorrectly converted data. **Figure 1** shows the breakdown of known defects.

The errors caused by defects included both potential overpayments and underpayments of benefits. In addition, SAMS produced letters and tax slips containing incorrect information.

Given that several hundred defects remained in the system when we completed our audit, we believe that SAMS will continue to calculate incorrect benefit amounts. These errors added up to about $140 million when we completed our audit, and each subsequent calculation error will increase this total.

At the time of our audit, we noted that caseworkers had tried to intercept and manually correct

Figure 1: Serious Defects* Found in SAMS at the Completion of Our Audit

Source of data: Ministry of Community and Social Services

Errors and Problems Caused by Defects	Known Prior to Launch	Found after Launch	Total
Eligibility determination and payment amounts not correct, and other system functionalities not working	257	875	**1,132**
Client data converted from previous system not accurate	38	35	**73**
Letters to clients not correct	81	221	**302**
Reports incomplete and inaccurate	156	97	**253**
Information sent to other computer systems through interfaces not accurate	129	150	**279**
Overall system performance problems (including speed)	50	178	**228**
Problems faced by clients while accessing SAMS' online features	26	60	**86**
Total	**737**	**1,616**	**2,353**

* A serious defect produces the wrong result and may require a workaround to produce the right result.

these errors as they were found. However, given the number of defects that have not yet been fixed, and the complexity of the problem, uncorrected errors remained.

Caseworkers also had to deal with client anger and distress over the errors—all the while trying to learn how SAMS works.

4.1.1 Defective System Caused Difficult-to-identify Errors

At the completion of our audit, several hundred defects had not been fixed and remained outstanding, as we discuss in **Section 4.2**. Defects cause many different types of errors to clients' benefit eligibility and payments.

If caseworkers are unable to identify and correct errors, some may go unnoticed for months, or may never even be identified and resolved. Social assistance recipients are considerably vulnerable insofar as most are disadvantaged or disabled. Many of them may be unaware of errors in their benefit payments, or lack the confidence to dispute government-issued money or documents.

Some examples of errors included:

- SAMS erroneously created a $2,900 overpayment on a client's file that was never actually paid to the client. SAMS proceeded to recover this nonexistent overpayment by deducting $32 from the client's total benefit payments each month. The client found the mistake and notified the caseworker. However, as stated earlier, many clients are not able, or inclined, to review the details of their payments.
- Two files appeared in SAMS for the same individual, allowing this person to receive twice the legitimate benefit payments for three months, before the caseworker caught it.
- SAMS paid benefits for six weeks to a client who was in jail. Incarcerated clients are not eligible for benefits, but a specific defect meant the caseworker was never notified that the client was in jail.

Caseworkers also told us of an instance where SAMS overpaid benefits to a client with mental disabilities who did not realize the benefit was too high. The individual spent the money, and did not have the means to repay it. Through the Ministry's own collection efforts, the bank froze the client's account, leaving the client without any money. A caseworker had to work around SAMS by issuing cheques by hand to the client.

4.1.2 Documents Containing Incorrect Information Mailed to Clients

SAMS automatically generated an unknown number of documents, such as letters and T5 tax slips, with incorrect information. The Ministry doesn't know how many of these documents were generated, nor how many were caught before they were mailed out.

The Ministry told us that all incorrect T5 slips were corrected before they were sent to clients. However, we saw several instances at our site visits of clients bringing incorrect T5 slips that they had received to their caseworkers after noticing errors. There could be other clients who did not identify errors and so would have reported incorrect information in their 2014 tax returns. This could ultimately affect their eligibility for benefits, the amount of benefits they receive, and the tax they have to pay.

We also saw a number of erroneous letters that clients brought to their caseworkers that would have caused the clients stress and confusion. We found letters that stated that:

- Two clients living together each owed $8,736 because they had been overpaid (the clients in fact owed only $664 each). We included one of the two letters these clients received in **Appendix 1**.
- An ODSP file had been put on hold and the client would not receive income support or other benefits because the client did not live in Ontario (the client had never left Ontario).
- The client would receive $17,129 (the client was in fact never eligible for this payment and was never paid).

Caseworkers also told us that other documents, such as drug cards, also contained incorrect information. Drug cards prove to pharmacies that the holders are eligible for medication coverage. In one instance SAMS printed the name of a deceased child on the parent's drug card and the card was mailed to the parent.

4.1.3 Defective System Required Caseworker "Workarounds," Taking Time Away from Clients

SAMS was supposed to relieve caseworkers of administrative tasks so they could spend more time helping clients become self-reliant. The Ministry began monitoring the functionality of SAMS as soon as it was launched through daily calls to offices providing Ontario Works and ODSP services. In the first month SAMS was in use, the Ministry identified the following issues, all of which resulted in caseworkers having less time to help clients:

- About 80% of the province's 238 Ontario Works offices and 45 ODSP offices reported that caseworkers had to deal with many problems sparked by SAMS, and that there were significant issues with staff morale. Almost a quarter of these offices reported they were "unable to continue operations without additional support."
- In contrast, only about 20% of all offices across the province reported that they were able to cope with SAMS. We noted that almost all of these offices were in sparsely populated areas, with relatively fewer clients—and therefore had fewer SAMS' errors to deal with.

In addition, some social-assistance services and activities were reduced, and implementation of policy changes was delayed.

Caseworkers Had Less Time to Help Clients

The errors generated by SAMS shifted the majority of caseworkers' time and effort to performing "workarounds," when they could have been spending that time on providing the full range of case-management services to clients. A workaround is a series of steps to be used temporarily to deal with a SAMS problem until the problem is permanently fixed. Many workarounds require unusual strategies to coax or force SAMS to generate a correct result.

When SAMS went live, the Ministry had developed 27 workarounds for the defects it already knew about. More workarounds were developed after launch as caseworkers identified new defects. By December 31, 2014, a little over a month after launch, the Ministry had developed 59 more workarounds. Caseworkers also developed numerous additional workarounds of their own to deal with defects that the Ministry was unaware of (because of the help desk's call backlog, as further explained in **Section 4.2.2**).

The following examples show how time consuming workarounds can be:

- SAMS incorrectly deemed certain clients ineligible for benefits. The workaround required caseworkers to re-add client address information because it did not convert into SAMS from the previous system. This took 34 steps.
- SAMS incorrectly rejected a client for benefits. The workaround required caseworkers to override SAMS' mishandling of the fact that, in the past, the client had been incarcerated for one day. This took 17 steps.
- SAMS incorrectly processed a pregnancy-related benefit, requiring a 25-step workaround.

Workarounds address not only calculation errors, but also defects in SAMS' functions, such as reminders. The previous system had a "tasks" function that the caseworker could set up to receive reminders of which cases required actions each day. SAMS' equivalent of this feature was defective, generating several hundreds of such reminders. In addition, numerous reminders were irrelevant because they related to cases the caseworker was not responsible for.

To work around this, caseworkers had to either set up their own reminders on other computer programs (Outlook), or keep a spreadsheet file of all their cases and check it daily to ensure they were keeping up with tasks such as following up on documents required to maintain client's benefit eligibility or checking in with clients. Maintaining these duplicate task-reminder systems was time-consuming, and provided no efficient way to ensure accuracy and timeliness.

Caseworkers Met Clients Less Frequently

Two Ontario Works offices we visited tracked appointments with their clients. In one, client appointments dropped from 612 in May 2014, before the launch of SAMS, to 325 in May 2015, after SAMS was launched. In the other, the drop was from 862 to 500 between the same two months. Caseworkers told us that these drops were mostly as result of them having to spend extra time to deal with SAMS problems.

Social Assistance Services and Activities Reduced

While caseworkers focus on case management, other staff with more experience (often former caseworkers) deliver services mandated by the *Ontario Works Act* or provided by specific Ontario Works programs. The services they deliver are designed to help clients become more self-sufficient. For example:

- Employment Co-ordinators coach clients in resolving barriers to employment and self-sufficiency, and in establishing viable goals; and
- Family Support Workers help clients negotiate child and spousal support agreements and pursue those support payments.

Municipalities reassigned these other staffers away from their regular duties so they could help caseworkers deal with SAMS issues.

The Ministry also put certain Ontario Works and ODSP activities required by legislation and regulations on hold. **Figure 2** provides details on the suspended activities.

4.1.4 Defects Forced Caseworkers to Circumvent SAMS Processes, Undermining Data Integrity

SAMS should automatically calculate separate benefit amounts such as shelter or heating costs and then tally them up to issue the client's total monthly payment. However, defects caused SAMS to incorrectly calculate the separate benefit amounts.

Figure 2: Ontario Works and ODSP Activities Suspended by Ministry in December 2014

Source of data: Ministry of Community and Social Services

Suspended Activity*
Ontario Works
Updating clients' employment-activity agreements and outcome plans (legislation and regulation requires these to be updated for benefits to be issued)
Recovering benefits from clients who breached their employment-activity agreements (e.g., by not looking for or keeping a job)
Verifying whether existing clients remain eligible for benefits
Ontario Disability Support Program
Verifying whether existing clients remain eligible for benefits (this includes reconfirming their disability)
Preparing an annual Performance Development and Learning Plan
Collecting overpayments from former clients that are no longer receiving social assistance

* When we completed our audit, the Ministry informed us that it was expecting to resume these activities in fall 2015.

As caseworkers were unable to issue correct payments, they had to work around the problem. Their most common approach was to manually issue a client's monthly payment as an "undefined benefit." When issuing undefined benefits, there is no record of the actual benefit types clients are receiving (such as shelter or heating costs), or the amounts. Ultimately, this circumvention of the normal process undermines SAMS' data integrity.

Originally, the Ministry created the "undefined benefit" as a last-resort option for caseworkers to provide clients with the correct amount of benefits. Caseworkers told us they were advised not to issue "undefined benefits" if they could avoid it, but by July 31, 2015, they had been forced to rely on it almost half a million times to pay out about $130 million. As a result, the $130 million can't be traced back to the actual benefits clients are receiving or their amounts.

Although caseworkers were issuing fewer undefined benefits by the time we completed our audit, the overall impact of this approach on SAMS' data integrity could be irreversible.

4.1.5 SAMS Still Unable to Report Correct Information

Caseload information helps the Ministry track its social-assistance programs. If Ontario Works is succeeding in helping clients get and keep jobs and become self-sufficient, this information should be visible. While many ODSP clients are permanently disabled and will not move off the program, caseload information helps the Ministry track trends in enrolment to help it manage the program.

This information also helps municipalities manage their Ontario Works cases and analyze their effectiveness in administering Ontario Works. This information is further necessary to manage the funding of the Ontario Works program. This is explained in detail in the following subsections.

Monthly Statistics on Social Programs No Longer Available

After SAMS was implemented, the Ministry stopped its regular practice of publishing monthly statistics on the number of clients leaving social assistance. This information would normally help the Ministry's decision-makers identify trends and analyze program effectiveness. We sought this information to assess the high-level impact of the reduction in social-assistance services after SAMS' implementation. Through comparisons to the results before SAMS, we wanted to see if we could determine whether clients stayed longer on social assistance than they would have if the full range of social-assistance services to help them become self-sufficient had been available after implementation of SAMS.

After several requests, the Ministry provided us with these statistics. It indicated, however, that it has not yet completely validated the process used to extract this information from SAMS, and so has not yet made this information public. We therefore did not rely on this information.

Ministry Could Not Determine Total Reimbursement Amounts to Be Paid to Municipalities

The Ministry and municipalities share the cost of benefits paid to Ontario Works recipients. To obtain the funds they need to deliver Ontario Works, municipalities used to complete a claim form every month detailing the payments issued to clients. They submitted the claim to the Ministry and received a lump sum to cover the Ministry's share of these costs. The previous system generated a number of reports from which municipalities could pull the information needed to complete the claim form.

Since SAMS' reporting function was defective from the beginning, municipalities could not total their payments and claim reimbursements. As a result, the Ministry stopped requesting reimbursement claims from municipalities, instead advancing them the same amount each month (based on rolling averages of the amounts municipalities had claimed for reimbursement in the three months before SAMS was launched). It requested that municipalities simply "advise whether the amounts of the advances are sufficient or need adjusting."

Municipalities Unable to Reconcile Bank Records with SAMS' Records

To help identify potential fraud, municipalities need to reconcile the social assistance payments their banks issue with the records of those payments in SAMS. However, since SAMS could not accurately report on social assistance payments, this reconciliation could not be performed.

One smaller municipality we visited attempted to reconcile payments made in November and December 2014. SAMS' reports on the social assistance payments of this municipality for this period indicated about $218,000 less in total payments than were indicated in the bank records. The municipality was able to manually trace about $200,000 of this amount to payments that SAMS had registered but did not include in its reports. The remaining $18,000 could not be reconciled and justified, meaning that it could be either legitimate but not traceable, or unauthorized; it's impossible to know which until the amount is reconciled.

4.1.6 Policy Change to Improve Social Assistance Delayed

SAMS' problems contributed to a delay in implementing a policy change meant to improve social assistance programs.

The government's April 2014 Budget said a new "Employment-Related Benefit" was supposed to be implemented April 1, 2015 to replace seven existing Ontario Works and ODSP employment benefits. This would also simplify the provision of financial assistance to clients and provide a majority of them with slightly more income assistance. The Ministry informed us that the new benefit was suspended to enable it to focus on fixing SAMS first.

4.1.7 Inadequate Training and Assistance for Caseworkers

Caseworkers were not well trained in the use of SAMS. When they sought help, caseworkers received inadequate support.

Caseworkers Found Training Not Useful

At one point during the development of SAMS, the Ministry planned to launch SAMS in May 2014, and scheduled online training for caseworkers between January and May 2014. Caseworkers informed us that the training program repeatedly shut down without warning and had many errors.

Over half of the caseworkers who completed a survey at the end of this training said they did not feel confident they would be able to deal with more complex real-life situations, and about one-third said they did not feel confident they would be able to work on SAMS.

The training proved somewhat questionable anyway because SAMS had not yet been fully developed, so the preliminary version used in training was far different from the final version. This preliminary version also did not contain any converted data to allow for simulation of real-life scenarios. This left caseworkers unprepared to work on SAMS when it was launched.

In the months leading up to the launch, the Ministry provided additional SAMS training for caseworkers. This training was optional and again, converted data needed to simulate real-life scenarios was not used. The Ministry did not track how many caseworkers completed this training.

Help Desk Staff Had No Working Knowledge of SAMS

Staff working the main help desk right after SAMS was launched had no working knowledge of SAMS and could not directly help caseworkers. While some transferred caseworkers' calls to the Ministry, most just recorded the caller's information regarding the problem and forwarded it to the Ministry. This did not provide most caseworkers' with a resolution when they called, and knowledge of whether their problem would be addressed.

At the time of our audit, the Ministry still had a backlog of 11,500 help-desk calls. After launch, the Ministry had also provided other help lines for specific errors, but those help lines also had a backlog of a few hundred unanswered calls when we finished our audit.

4.2 Ministry Response to SAMS Problems Inadequate

As of July 31, 2015, the Ministry had fixed 1,582 of the currently identified 2,353 serious defects, and caseworkers were better able to use SAMS than at launch. However, SAMS was still not functioning as it should, with 771 defects remaining outstanding. Also, the Ministry had yet to identify many defects, and had not dedicated all of its resources to fixing defects.

Poor design of SAMS was causing caseworkers to continue to spend an inordinate amount of time processing transactions and performing other activities. We describe all of these findings in this section, and conclude with an analysis of the dollar costs incurred, by municipalities and the province, after SAMS was launched.

4.2.1 Not All Payment Errors Identified

Until such time as serious defects are fixed, SAMS-generated errors will continue to add to the current cumulative total of about $140 million (consisting of $89 million in potential overpayments and $51 million in potential underpayments). This figure includes only those errors from defects that have been fixed; the Ministry can only quantify the dollar impact error of a defect once it is fixed because that is when SAMS automatically recalculates past incorrect benefits.

For example, SAMS may incorrectly calculate the monthly benefit for a client as $570, when it should be $600. After the defect is fixed, SAMS recalculates this amount and reports that the client got $30 a month less than he or she was entitled to. Such identified potential underpayments and overpayments make up the $140 million.

The Ministry designed and implemented manual workarounds for caseworkers so a caseworker may already have identified the error and circumvented the normal SAMS process to issue the correct payment, well before the Ministry fixed the defect. In this case, the client would have received the correct amount of money.

However, the Ministry cannot confirm if workarounds were always applied by caseworkers, and as a result, the Ministry does not know what portion of the approximately $140 million has already been corrected by caseworkers. Thus, allowing SAMS to adjust the $140 million of past incorrect benefits could reverse corrections made previously by caseworkers.

In response to this, the Ministry suspended the adjustment of all benefit corrections calculated by SAMS, and told us it is planning to have caseworkers manually review such corrections—starting at an unspecified time in the future.

This means that the Ministry may never know how much of the $140 million was manually corrected by caseworkers. It also means that people who received less money than they should have in the past (because they or their caseworkers failed to identify the error), may never get a cheque for the shortfall, or likewise overpayments, instances where people received more than they should, may never be collected.

The $140 million will continue to grow because of the remaining defects, and it will remain an issue until caseworkers start their manual review at an unspecified date.

4.2.2 Ministry Still Does Not Know All Defects

After launch, the Ministry's main source of information on SAMS' defects was caseworkers. Specifically, the Ministry relied mostly on caseworker calls to find out the problems they were experiencing, thereby helping to identify SAMS' defects.

In the first month after launch, the help desk received 12,500 calls from caseworkers. By July 2015, it had received almost 30,000 calls. However, many caseworkers told us they stopped calling the help desk because they found it pointless (as mentioned in **Section 4.1.7**, help desk staff had no working knowledge of SAMS). Any defects encountered by caseworkers who did not phone the help desk are therefore unknown to the Ministry.

When we completed our audit, the Ministry had a backlog of 11,500 calls from the help desk that it had not yet reviewed. There was also a backlog for processing the calls made to the additional help lines the Ministry had added.

The Ministry also had a backlog in processing 429 problems identified through these calls, most of which would end up as defects that need to be fixed.

4.2.3 Resources Are Not Sufficiently Dedicated to Fixing Known Defects

At the time of our audit, it took on average 40 days to fix a serious defect, and only Curam consultants, not the Ministry, had the skills to do so. However, according to the most recent report we reviewed on Curam's consultants' time, consultants were spending less than half of their time (44%) fixing serious defects. The remaining 56% was spent developing new enhancements to SAMS' functions, resolving ad hoc requests and transferring knowledge to ministry staff.

The Ministry informed us that the enhancements will resolve many defects. However, we found that many enhancements were new add-ons to the current system and in fact did not resolve existing defects.

4.2.4 Some Fixes Inadequate

Some defects that the Ministry claimed were fixed still persisted at the time of our audit. Also, some fixes had introduced other problems.

Defect Making SAMS Vulnerable to Fraud Not Adequately Addressed

The Ministry told us in August 2015 that it had fixed 52 of of the 57 most serious defects. However, we confirmed that one of the 52, which made SAMS vulnerable to fraud, still existed.

The fix installed a control whereby caseworkers could not make changes to files not in their caseload. However, caseworkers demonstrated to us that they still had unrestricted access to all of SAMS' approximately 900,000 client files.

Caseworkers could change the benefits or personal information such as bank account number for any client. We informed the Ministry of our finding. The Ministry informed us that it will attempt again to fix this defect in November 2015.

Ministry Not Fully Testing Fixes

Ministry staff directly dealing with SAMS after it was implemented told us they were overwhelmed by the sheer number of initial defects. In an attempt to stabilize SAMS in the first 12 weeks after launch, the Ministry installed an average of 10 fixes a day in the form of software upgrades. However, the Ministry was not testing these fixes. The result was that some of these untested fixes caused SAMS to issue $120,100 in incorrect payments to clients that caseworkers were later assigned to recover.

The main reason the Ministry was not testing its fixes prior to launch was that, due to funding constraints, contracts were not renewed with those consultants best able to test the fixes. In July 2015, the Ministry hired eight new consultants to replace the previous ones; however, only one of the new consultants had any prior experience and knowledge of SAMS. The Ministry estimated it would take about six months for the new consultants to reach the same level of proficiency in SAMS as the previous consultants.

When we completed our audit, the Ministry did not expect to fully test its fixes until early 2016.

4.2.5 Poor Design Not Addressed

In some ways, SAMS was poorly designed, and the Ministry had not addressed this basic flaw at the time of our audit. Until the Ministry addresses this issue in a more substantial way, SAMS will continue to force caseworkers to spend more time dealing with its shortcomings than helping their clients—even after all the defects have been fixed.

For example, SAMS forces caseworkers to enter the name of a school for each child in a family applying for benefits—including children not yet in school. In order to get SAMS to accept the application, caseworkers type the words "fake school" for children not yet in school. Similarly, caseworkers must enter fictitious address information for clients who are homeless or move frequently. These are not defects; they are design flaws.

In addition, much caseworker time has been taken up with dealing with the design innovations of SAMS, many of which do not actually save much time. For example, inputting client addresses takes about 10 minutes—five times longer than before—because information has to be input into 38 different screens.

Figure 8 shows the results of a time study conducted by one Ontario Works office: seven months after SAMS' launch, it was taking caseworkers almost twice as long to perform essential daily tasks like entering client addresses. **Figure 8** does not include the fact that caseworkers' monthly detailed review of benefit payment accuracy took 20 minutes under the previous system and 2 and a 1/2 hours under SAMS, as the figure only summarizes daily tasks.

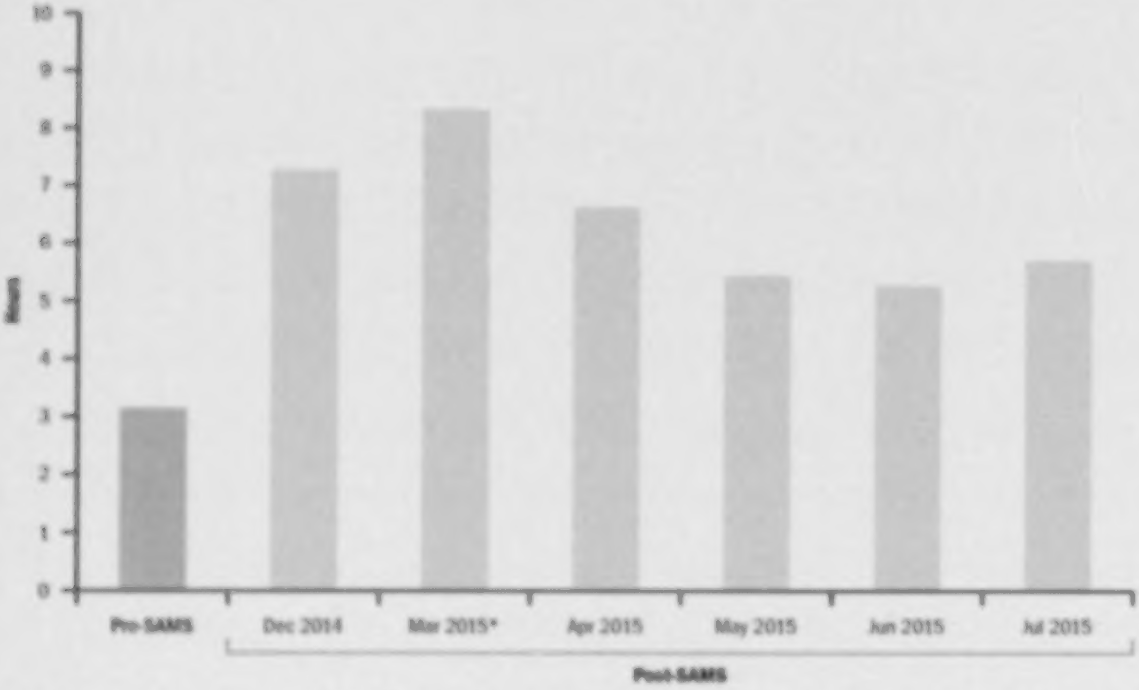
4.2.6 Costs to Stabilize SAMS Will Continue to Increase until Defects are Resolved

The Ministry spent $238 million to develop and build SAMS, and about $11 million to support its implementation. The Ministry estimates it will spend about $41 million up until March 2016 on SAMS for a total cost of about $290 million. Of the $41 million, $20 million has already been spent on stabilizing the system, $10 million of which was provided to municipalities to help offset some of their SAMS related costs. However, municipalities incurred significant overtime costs beyond this amount to deal with SAMS' issues.

We surveyed all Ontario municipalities to determine the total of these costs. About half the municipalities responded to our survey and reported that they incurred $12.3 million in overtime costs as of June 30, 2015. As the Ministry does not anticipate

Figure 3: Changes in Total Average Time per Caseworker to Perform Daily Essential Tasks Before and After SAMS' Launch

Source of data: One municipal Ontario Works office visited



* Between December 2014 and March 2015, caseworkers started to perform, for the first time, detailed reviews of daily benefit payments, which accounted for the rise in hours in March 2015. This occurred because caseworkers became aware that daily benefit payments could contain errors caused by SAMS' defects.

SAMS becoming fully stable until spring 2016, until such time, the final cost of SAMS will remain unknown.

RECOMMENDATION 1

To ensure that eligible individuals receive the level of social assistance and support to which they are entitled, and to eliminate as best as possible, eligibility and benefit payment errors made by the Social Assistance Management System (SAMS), the Ministry of Community and Social Services should:

- assign adequate resources to review the backlog of information related to potential defects so that defects can be prioritized for fixing;
- allocate its resources so that fixing of defects takes priority; and
- develop a process to reconcile all benefit payment errors generated by SAMS to the eligible amounts that clients should have received and ensure that they are corrected.

MINISTRY RESPONSE

The Ministry agrees with the recommendation and has made significant progress in fixing defects and enhancing system functionality since SAMS was implemented last November and since the auditors' field work completed, for example:

- After go-live, the Ministry implemented an aggressive release schedule to incorporate fixes and enhancements. More than 90% of priority system issues identified by our staff and delivery partners have been addressed.

- The Ministry has a plan to improve incident management in the short term, including the identification of any additional defects. The Ministry has increased its capacity and expertise to assist staff in expediting the clean-up of the incident ticket backlog, and to triage and resolve new incident tickets more quickly and systematically.

The Ministry has moved to a quarterly release cycle for fixes which allows for additional engagement with front line staff and delivery partners to appropriately plan and carefully consider and prioritize defects/enhancements.

The Ministry has put additional payment controls in place and is undertaking a review of its payment control processes to ensure the controls are effectively targeting issues. Any incorrect payments will be corrected and recovered where applicable.

4.3 Consultant Work Inadequate, Not Properly Overseen by Ministry

IBM consultants were responsible for converting data from the previous system into SAMS, and for designing and developing interfaces to enable SAMS to communicate with other external computer systems. Curam consultants were responsible for writing code to customize Curam's off-the-shelf system to ministry business requirements (IBM bought Curam in December 2011, so from that time forward, all consultants were IBM consultants. However, for the purposes of this report, we continue to refer to Curam consultants as those who developed SAMS, and IBM consultants as those who converted old-system data for transfer to SAMS, and developed the necessary interfaces.) Consultants delivered poor-quality work that contributed to delays and defects. The Ministry did not properly oversee the work of the consultants; it also made consultants' jobs more difficult by changing its business requirements late into the project.

In the following subsections, we examine this area in detail and outline our concerns.

4.3.1 IBM Missed Crucial Data-conversion Deadlines, Generated Errors in Data

After the Ministry completed most of its planning, the completion date for the project was November 2013, with a revised budget of $171.4 million. As Figure 4 shows, this deadline was extended three times, with a final approved completion deadline of December 2014, one year later than first planned. Increases to the project's budget were approved with each extension, with a final approved budget of $242 million. As we discuss in the following subsections, IBM's inability to meet deadlines was a key factor in the project extensions and budget increases.

Data Conversion Critical

For SAMS to correctly make eligibility decisions and process payments, it must have the correct data on clients (for example, correct age, income and family status). One of the most challenging parts of the SAMS project was transferring all the data stored in the previous system going back two years into Curam software.

Curam software could not accept and read the data in the previous system because of the way that data was formatted. The data therefore needed to be converted into a format that Curam software could process before it could be successfully transferred. For example, the previous system stored postal codes in whatever way caseworkers typed them in—sometimes with a space in the middle, sometimes without, and sometimes even with a dash in the middle. That postal-code data could not just be moved into SAMS—it needed to be converted into a standard, pre-defined format for Curam software. All data needed to be thus converted, and this required expert knowledge of Curam software.

Ministry staff did not have this knowledge, so the Ministry issued a request for proposals to outside service providers. Specifically, the Ministry sought a service provider that:

- had the expertise to convert data into Curam software; and
- understood the importance of, and could support, a pilot test of SAMS using the converted data.

The Ministry chose IBM in 2011 in part because IBM's proposal met these requirements. IBM was to be paid on the basis of meeting the terms of its contract, as opposed to consultants being paid by the hour. The contract stated that IBM must inform the Ministry if it could not transfer client data and explain why.

IBM Did Not Provide Adequate Expertise

IBM did not deliver converted data to facilitate the pilot test of SAMS that was scheduled for the summer months of 2013. The pilot was a key project milestone, and the risks of failing to conduct a full pilot with converted data were significant, especially because the Ministry had decided on a "big-bang" approach to implementation. If SAMS could not process clients' data correctly from day one, serious problems would occur. Conducting a pilot in advance of launch was supposed to reduce this risk, as the Ministry would be able to identify and fix any errors identified during the pilot.

IBM representatives and some Ministry staff both told us that one of the reasons IBM could not finish the job in time was partly due to the fact that the Ministry defined some of its requirements much later than expected. As a result, IBM struggled to convert some data for software that was still being developed. This in turn required consultants to change what they needed to do to convert some of the data.

On June 17, 2013, the Ministry served a rectification notice on IBM that it had failed to comply with the terms of its contract. The notice stated that IBM had failed to deliver converted data on time and did not ensure that its personnel had expertise or up-to-date certification with Curam software.

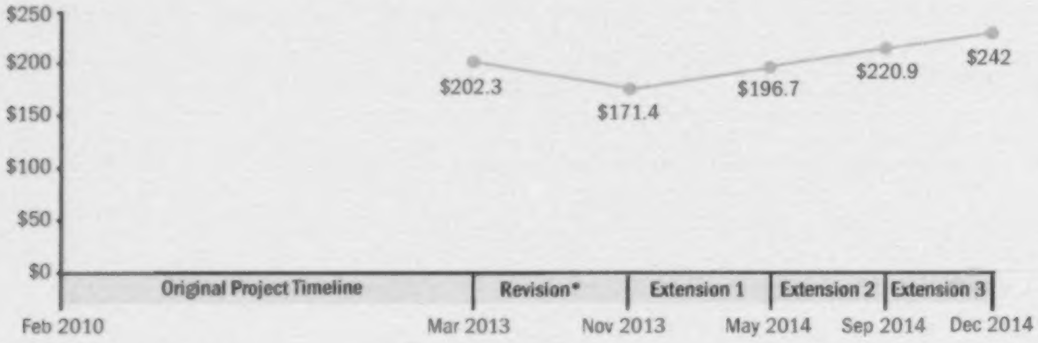
On June 26, 2013, IBM responded, committing to dedicate knowledgeable staff to the project who would deliver the converted data in August 2013. However, the staff still struggled, and IBM again failed to meet the new delivery date.

Since the Ministry had already prepared selected offices for the pilot, it went ahead and conducted a partial pilot without converted data.

With still no converted data from IBM in October 2013, the Ministry asked Treasury Board for a six-month project extension and a $25.3-million budget increase. It also moved SAMS' launch from November 2013 to May 2014. (This is shown as Extension 1 in **Figure 4**.)

Figure 4: Project Timeline and Approved Budget, and Subsequent Extensions and Approved Budget Increases ($ million)

Source of data: Ministry of Community and Social Services



* As a result of further planning, the Ministry revised the original project timeline to November 2013 and the project costs to $171.4 million.

Essential Pilot Tests Could Not Be Conducted with Converted Data

A pilot of a substantially completed system with converted data would reveal defects that could be fixed before launch. For example, if the caseworkers piloting the system found that it made incorrect benefit-eligibility decisions, calculated the wrong benefit payment amounts or crashed when used, project staff would have months to fix these problems. The pilot would also show if the new system could do daily and monthly pay runs with the correct total payment amounts, matching those being issued by the system currently in use. None of these tests could be conducted in the SAMS pilot because the converted data was not ready.

The Ministry scheduled a second pilot with converted data for later on. However, because data-conversion continued to be delayed, this second pilot was again conducted without converted data. The Ministry did some testing of its own, but as we discuss in **Section 4.4.4**, it was not enough.

SAMS' Launch Postponed for Second Time Because of Data-conversion Delays

On February 18, 2014, about a year after IBM was first supposed to have delivered converted data, the then Deputy Minister of Community and Social Services wrote to the Chairman, President and Chief Executive Officer of IBM. The letter expressed concerns with IBM's inability to abide by the terms of its contract and meet the revised deadlines for delivering converted data. The Deputy Minister stated that IBM's actions were severely impacting the overall project and had forced the Ministry to delay SAMS' launch.

IBM responded with a stronger commitment to finish the job and did deliver converted data in April 2014, but this was far too late to keep to a May 2014 launch. Months would be needed to test it, fix defects and find an opportune time to shut down the system in use for the few days needed to transfer the data over into SAMS.

As a result, in April 2014, the Ministry was forced to yet again ask the government for another project extension of four months and an additional $24.2 million to support the project. (This is shown as Extension 2 in **Figure 4**.)

Data Conversion Issues Led to Third Launch Postponement, Budget Increase

In July 2014, it was clear that the converted data IBM delivered in April contained errors and that SAMS had numerous defects. The Ministry reported this to Treasury Board, and requested another project extension of five months and a budget increase of $21 million. This was needed to conduct more testing, cover additional resources to support the implementation of SAMS and make it stable enough for launch. (This is shown as Extension 3 in **Figure 4**.)

Data Transferred into SAMS Had Thousands of Errors after Launch

After six months of work on minimizing the converted-data errors, the data was transferred into SAMS between November 6 and 9, and SAMS launched on November 11, 2014.

When SAMS was launched, it could not read data for over 5,000 case files because it contained so many errors. The cause of the errors could not be identified.

In addition, the Ministry found after launch that the data for the remaining case files, which SAMS could read, contained 114,000 errors:

- In about 19,000 case files, the data on outstanding overpayment balances, to be collected from clients by the Ministry, was incorrect.
- In about 10,000 case files, the data on trustees (people who manage the payments of ODSP clients who cannot manage their own payments because of a disability) was unreadable. As a result, caseworkers had to manually re-enter the information so that payments could be processed for the affected clients.
- In about 78,000 case files, income information records had been deleted. The Ministry was

alerted to this problem by a caseworker who noticed it for some clients. Clients could lose their eligibility for benefits because these records were missing from their files; to prevent this from happening, the Ministry installed a fix just before the pay run so these clients could still receive their benefits.

- In about 7,000 case files, information on clients who previously received benefits as a married couple but then had separated was mistakenly re-linked. With the erroneous information transferred into SAMS, there were several instances of breach of privacy where, for example, a client's address was disclosed to the client's ex-spouse.

4.3.2 Ministry Did Not Adequately Oversee Consultants

The Ministry was ultimately responsible, as System Integrator, for ensuring that all components needed for SAMS were successfully developed, integrated and tested. However, it relied mostly on Curam consultants to develop SAMS—specifically, to write code to modify Curam's off-the-shelf system so that it met the Ministry's business requirements. Under the contract, the Ministry would pay consultants an average rate of $190 per hour billed. To mitigate against the risk of consultants claiming expertise they do not actually possess, and purposely delaying work and misinforming the Ministry while charging billable hours, it was essential for the Ministry to have a strategy for staying on top of the project and ensuring it did not spiral out of control. The Ministry did not have such a strategy.

Curam Consultants' Work Mostly Overseen Directly by IBM Consultant

The Curam development team was directly overseen in part by an IBM project manager. This IBM consultant was engaged by the Ministry between March 2010 and April 2013 (when most software development took place) and was paid about $2,000 per day, for a total of $1.3 million for the 23-month period. As a result, Curam (owned by IBM) was overseen by an IBM project manager.

Ministry Did Not Have Adequate Controls to Assess Consultants' Effectiveness and Efficiency

The Ministry received timesheets from Curam and IBM, but the information they contained was too vague for the Ministry to know what specific work consultants did for the hours charged; for example, in the sample of timesheets that we reviewed, some consultants stated only that they were "triaging conversion defects and fixing some of them" or "defect fixing." Given the vagueness of this reporting and the lack of independent direct oversight during much of the project, it was difficult for the Ministry to assess how efficiently consultants were working.

The Ministry told us that it mostly relied on the IBM project manager to assess the efficiency and effectiveness of Curam consultants' work. However, when we reviewed the project manager's work, we found the project manager neither tracked the hours Curam consultants spent fixing SAMS' defects nor included this information in his analysis. His analysis therefore did not provide a complete picture of consultants' efficiency and effectiveness.

Curam Consultants Worked Inefficiently Before Launch, Still Not Required to Report Activity to Ministry at Time of Audit

In April 2013, the IBM project manager was transferred out of this role and the Ministry hired an independent consultant to oversee Curam consultants' work. By November 2013, this consultant had improved the way Curam consultants' work was documented and analyzed. Our review of documents maintained by this consultant identified that between November 2013 and March 2014, Curam billed the Ministry 11,500 hours, at an average rate of $190/hour, for work that was estimated would take about 10,300 hours, indicating that they were working inefficiently.

From March 2014 on, the independent consultant stopped assessing if work was done efficiently or even on time because development of SAMS was essentially complete and consultants were mainly working on fixing defects. The Ministry made a decision not to assess how efficiently this work was being performed.

The Ministry's budget for Curam's consultants more than doubled from the beginning of the project to launch, from $14 million in the original budget to $32 million at launch.

At the time of our audit, the Ministry told us it intended to resume assessing consultants' efficiency.

RECOMMENDATION 2

To prevent unnecessary delays in bringing the Social Assistance Management System (SAMS) to full and effective functionality, and to ensure that the consultants still working on SAMS are held accountable for delivering quality results, the Ministry of Community and Social Services should:

- assign its own properly qualified staff to directly oversee consultants;
- ensure that consultants' work is assessed for efficiency and effectiveness; and
- on future projects, work towards reducing its dependence on consultants, and ensure consultants' knowledge is transferred to ministry staff.

MINISTRY RESPONSE

The Ministry agrees with the recommendation and will improve the monitoring of consultants to ensure the desired results are achieved. In doing so, the Ministry will assess the efficiency and effectiveness of work performed by consultants, and take corrective action where necessary to ensure deliverables are provided within specified timeframes and meet quality standards.

The Ministry will assess and ensure an appropriate mix of consultants and Ministry resources and will require appropriate knowledge transfer as a priority in vendor agreements.

4.3.3 Curam Consultant Billings Remained High Because Ministry Staff Unable to Fix Serious Defects

We found that in customizing Curam software, Curam consultants' work contained errors that created about 5,100 defects. For the most part, the same consultants were the only ones who could fix the defects they created. Furthermore, as mentioned in **Section 4.2.4**, some fixes engendered further errors that also needed fixing. The Ministry was billed for the extensive time consultants spent correcting their own errors.

The Ministry did not ensure that Curam consultants transferred their knowledge to its own staff before launch. At the time of our audit, the Ministry still relied heavily on Curam consultants to fix serious defects.

The Ministry's staff of 11 developers were becoming more knowledgeable when we finished our audit, but we were still surprised at how slowly they were learning to fix even minor problems. Our review identified that in the first nine months after launch, these 11 staff resolved only 257 minor problems. This translates into only 2.5 fixes of minor problems per month per developer.

RECOMMENDATION 3

To ensure that ministry staff can help fix all defects in the Social Assistance Management System (SAMS) in the short term, and maintain SAMS in the long term after consultants have left, the Ministry of Community and Social Services should:

- establish a knowledge transfer strategy for ministry staff which includes outcome targets based on achieving learning objectives; and
- assess and document the progress in achieving these targets.

MINISTRY RESPONSE

The Ministry agrees with the recommendation and, as part of its Integrated Transition Plan, has ensured that a knowledge transfer strategy is in place and that there is appropriate capacity for ongoing maintenance and improvement of SAMS over the long-term. This strategy consists of:

- assessing staff readiness;
- providing the required product training and support tools;
- reviewing relevant SAMS documentation and project artefacts;
- providing staff access to vendor resources (mentors) currently delivering the services;
- assigning development activities to Ministry staff.

We have implemented outcome targets to ensure learning objectives are achieved. Knowledge transfer status and progress is reported bi-weekly at the Executive level and deployment managers meet with their staff on a regular basis to discuss status and feedback collected from mentors.

4.3.4 Curam and IBM "Free Services" to Ministry Not Really Free

The Ministry told us that IBM tried to compensate it for Curam's and IBM's poor performance by providing $12.8 million in "free services." This consisted of:

- unbilled overtime (some of which was only estimated, not tracked); and
- discounts on consultants' hourly rates.

The Ministry and IBM could provide us with adequate support for only $4.3 million in overtime hours that IBM did not bill for.

We rejected the characterization of discounted hourly rates as "free services" because the discounts were negligible, and the Ministry was still paying significant rates per hour. For example, the Ministry counted as "free services" all the hours for which IBM charged $231/hour instead of its usual rate of $275/hour that it could charge otherwise (the usual rate is what IBM would charge other clients for similar work.) The Ministry considered that $44/hour reduction, multiplied by the number of hours worked, as free services.

We also believe that crediting IBM for free services should be offset by the fact that, despite issues with the quality of IBM's work, the Ministry reduced IBM's performance warranty period (for all services except for interfaces). Specifically, when the project missed its May 2014 launch date (as discussed in **Section 4.3.1**), the original contract with IBM had to be extended to the new launch date of November 11, 2014. Because a new contract would have to be signed, IBM had an opportunity to ask for an increase in consultants' hourly rates, which the Ministry wanted to prevent. The Ministry therefore reduced the original contract's performance warranty period of 150 days to just 40 days in the new contract, expiring December 21, 2014. In exchange, IBM did not request an increase in the already high hourly rates of its consultants.

The result of the warranty-period reduction was that between December 21, 2014, and April 11, 2015, the Ministry paid consultants to fix defects that would have been covered under the original terms of the warranty. However the specific dollar amounts related to this could not be determined.

4.4 Ministry Overly Optimistic about SAMS' Readiness for Launch

In early November 2014, the Ministry knew that SAMS was not functioning as it should be for a November 11 launch to be successful. The Executive Committee decided to proceed with the launch anyway, believing that it and project staff knew enough about SAMS' defects, that caseworkers and other ministry staff would be able to manage the impact of those defects after launch, and that payments to clients would, for the most part, be accurate. We believe this was an unreasonably optimistic viewpoint.

In this section, we present the "go-live" criteria that the Ministry had developed as the final hurdle for SAMS to meet before launch, as well as SAMS' known performance against those criteria (**Section 4.4.1**); we discuss other important requirements that the Ministry knew SAMS did not meet (**Section 4.4.2**); we review the risks that the Executive Committee told us it weighed to decide to launch given what it knew (**Section 4.4.3**); we present further deficiencies in SAMS that project staff did not tell the Executive Committee about (**Section 4.4.4**); and we consider additional factors that contributed to the Ministry's faulty assumption that any problems encountered after launch would be fairly easy to manage (**Section 4.4.5**).

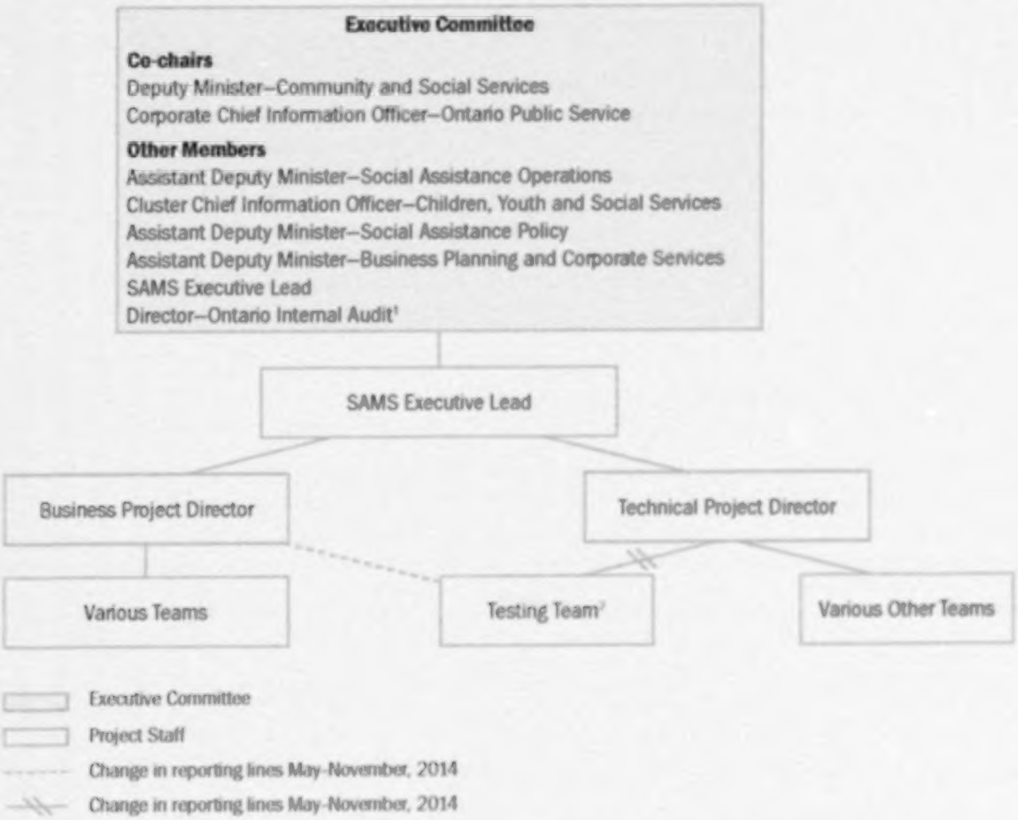
Terminology for This Section

Throughout this section, we will be referring to certain parties shown in **Figure 5**. Specifically:

- **The Executive Committee:** the project's overseeing body. It made the decision to launch based on information it received from project staff.
- **Project staff:** includes all staff working full-time on the project—the executive lead, the business project director, the technical project director and the members of all teams overseen by the two project directors.
- **The Ministry:** includes all parties in **Figure 5**.

Figure 5: The Key Parties That Developed and Launched SAMS

Source of data: Ministry of Community and Social Services


Executive Committee
Co-chairs
Deputy Minister–Community and Social Services
Corporate Chief Information Officer–Ontario Public Service
Other Members
Assistant Deputy Minister–Social Assistance Operations
Cluster Chief Information Officer–Children, Youth and Social Services
Assistant Deputy Minister–Social Assistance Policy
Assistant Deputy Minister–Business Planning and Corporate Services
SAMS Executive Lead
Director–Ontario Internal Audit[1]
SAMS Executive Lead
Business Project Director
Technical Project Director
Various Teams
Testing Team[2]
Various Other Teams
Executive Committee
Project Staff
Change in reporting lines May-November, 2014
Change in reporting lines May-November, 2014

1. The Internal Audit Director played an advisory role to the Executive Committee. The Internal Audit Director was not a voting member in making the decision to launch SAMS.
2. From May to November 2014 (that is, the six months prior to SAMS' launch), the testing team reported to the Business Project Director, not the Technical Project Director. After launch in November 2014, the testing team resumed reporting to the Technical Project Director.

4.4.1 Ministry Knew that Go-live Criteria Not Met

Project staff developed go-live criteria against which to check SAMS' performance shortly before launch. This check would enable the Ministry to assess whether SAMS was free from major defects and would function correctly once launched.

Figure 6 lists the criteria and SAMS' performance as reported to the Executive Committee at the end of October 2014 (two weeks before the planned launch). SAMS met only one of 18 criteria.

4.4.2 Ministry Knew Other Important Requirements Not Met

The go-live criteria were only a final check of SAMS' readiness. Extensive testing beforehand had been planned to occur well before the go-live criteria

Figure 6: SAMS' Performance Information Reported to the Executive Committee in October 2014

Source of data: Ministry of Community and Social Services

	Requirement Under Go-live Criteria	Reported Status
1.	**90%** of planned user-acceptance tests done	**81%** of planned user-acceptance tests done[1]
2.	**90%** of user-acceptance tests produce right results	**86%** of user-acceptance tests produced right results[2]
3.	**0** serious defects in test results	**1** serious defect still existed
4.	**100%** of SAMS-generated payments traceable to previous system	**98%** of SAMS-generated payments traceable to previous system
5.	SAMS generates **100%** of payments generated by previous system	SAMS generated **99%** of payments generated by previous system
6.	**0** discrepancies in payment amounts between previous system and SAMS	**5,500** discrepancies in payment amounts between previous system and SAMS[3]
7.	Daily pay run takes **less than 1 hour**; monthly pay run takes **less than 6 hours**	Daily pay run took **11.5 hours**; monthly pay run took **11.5 hours**
8.	**0** serious defects when processing pay runs	**0** serious defects when processing pay runs
9.	**100%** of test scenarios executed	**95%** of test scenarios executed
10.	**100%** of test scenarios executed using converted data	**0%** of test scenarios executed using converted data
11.	**100%** of interface testing with third parties done	**70%** of interface testing with third parties done
12.	**No batches skipped** while running all six batch groups; **0** batch groups to exceed expected time frames	**Reports batches skipped** while running all six batch groups; **3** batches exceeded expected time frames (taking 13 hours, 13.5 hours and 21.75 hours)
13.	**100%** of routine tasks take 3 seconds or less	**75%** of routine tasks took 3 seconds or less
14.	SAMS takes **under 3 seconds** to reassess client eligibility after changes made to case	SAMS took **between 3 and 10 seconds** to reassess client eligibility after changes made to case
15.	SAMS takes **under 7 seconds** to search cases by name and status	SAMS took **8 seconds** to search cases by name and status
16.	**0** data-conversion errors found in 14 fields checked	***Not reported***[4]
17.	**0** client's eligibility or payment amount should be impacted by uncorrected data-conversion errors	**15,824** clients' eligibility or payment amount were impacted by uncorrected data-conversion errors
18.	**0** serious defects in converted data	**7** serious defects in converted data

1. As explained in **Section 4.4.4**, our audit work determined that only 74% of planned user-acceptance tests were done, not 81% as reported to the Executive Committee.
2. As explained in **Section 4.4.4**, our audit work determined that less than 86% of user-acceptance tests produced right results. Testers did not track the number of times they misrepresented right results, so the percentage cannot be determined.
3. As explained in **Section 4.4.4**, our audit work determined that there were 52,000 discrepancies in payment amounts, not 5,500 as reported to the Executive Committee.
4. Project staff did not report the number of errors found in the 14 fields checked. Instead, it reported that "all discrepancies are identified and remedial action documented." Our review found that almost 30,000 data-conversion errors were found in the 14 fields. The Ministry's remedial actions were for caseworkers to manually fix these errors.

were assessed. Some of this planned testing did not take place. In addition, the go-live criteria did not include several important requirements that should have been considered. We describe both in the following subsections.

Some Planned Testing Did Not Take Place

No Pilot Conducted with Converted Data; Limited "User Acceptance Testing" Identified that More Testing Was Needed

As discussed in **Section 4.3.1**, a planned full pilot of SAMS never took place because converted data (from the previous system into SAMS) was not available in time. Thus, the version of SAMS that was launched was never piloted with actual data.

Project staff did conduct what was called "user acceptance testing," which is similar to a pilot. User acceptance testing would show how SAMS performs certain tasks; however, it would not show, as a pilot would, how SAMS' performance compares to that of the previous system, which in a pilot would have been run alongside SAMS.

User acceptance testing should be conducted with fully trained caseworkers, performing their actual day-to-day activities. For the SAMS testing, however, the caseworkers were not fully trained on SAMS, and the version of SAMS they tested was incomplete: it was not able to generate payments, generate reports or interface with other computer systems, since these functions were not yet ready and had not been installed.

The ministry staff that helped facilitate this test for caseworkers noted that more testing was needed on all SAMS components, as well as on general performance (how quickly and efficiently SAMS processes information).

16% of 1,772 Business Requirements Not Tested; Test Failure Rate Was One in Eight

SAMS must be able to correctly perform myriad functions, including determining eligibility, calculating payment amounts, generating letters and reports, and interfacing with other computer systems. Of all the business requirements the Ministry defined for SAMS, about one-third related to report and letter generation and interfacing. Project staff tested those functions thoroughly, but did not completely test SAMS' other functions. It left 16% of the business requirements for those other functions untested.

The overall average failure rate in test results was 13%, or one in eight. **Figure 7** shows these results. In other words, 13% of SAMS' functions were not working as intended.

Important Criteria Not Included in Go-live Check

Go-live Criteria Did Not Specify Overall Acceptable Number of Serious Defects; There Were Hundreds at Launch

The Ministry's launch strategy stated, "…the solution to be delivered is complex with significant risk to the Ministry if the solution is implemented with defects" and that SAMS should be implemented

Figure 7: Test Results for Different SAMS Functions

Source of data: Ministry of Community and Social Services

Function	Total Tests	Unsuccessful Tests	Failure Rate (%)
Generate a correct report	2,579	700	27
Generate a correct letter	8,574	1,384	16
Interface successfully	4,006	554	14
Other functions (e.g. eligibility determination, calculation of payment and other case management functions)	8,114	293	4
Total	**23,273**	**2,931**	
Overall Failure Rate			**13**

with little to no defects. We noted, however, that the go-live criteria did not specify what "little" meant with respect to defects.

If SAMS were to launch with a lot of serious defects, it would not matter if SAMS met all the other go-live criteria. Given the big bang approach to implementation, the impact of a large number of serious defects would outweigh any functionality SAMS had. As indicated in **Figure 6**, the go-live criteria specified only the following with respect to serious defects:

- Serious defects found in just the user acceptance testing should be resolved and retested (criterion 3, which was not met: one serious defect still existed at the go-live check).
- There should be no serious defects preventing pay runs from being processed (criterion 8, which was the only criterion met).
- There should be no serious defects relating just to data conversion (criterion 18, which was not met: there were seven serious data conversion defects).

Project staff told the Executive Committee shortly before launch that, overall, SAMS had 418 serious defects and that they had assessed 217 of them for their impact on caseworkers. Project staff reported that the errors these 217 serious defects would produce could be circumvented by 27 workarounds. No workarounds had been devised for the other 201 serious defects.

In fact, project staff knew of many more serious defects than what was reported to the Executive Committee. We discuss this in **Section 4.4.4** and **Section 4.4.5**. The point here, however, is that, notwithstanding the defects the Executive Committee did not know about, the Executive Committee made the decision to go live with the understanding that there were 418 serious defects and that workarounds had been prepared for only 217 of them.

Government-mandated Payment Testing Not Part of Go-live Criteria; Incomplete Tests Resulted in 28 Serious Defects After Launch

Since 2005, the government has mandated that the computer system for any program that provides payments must pass certain tests to ensure that payments and cheque stubs are accurate. SAMS was not in a stable enough condition to pass all of these tests, and only some testing was conducted.

This requirement was triggered by an incident that occurred in 2004. About 27,000 Ontario Child Care Supplement cheques for November 2004 were printed with the name, address and Social Insurance Number of the wrong recipient. To prevent something like this from happening again, the government now requires that any computer system that issues direct deposits and cheques through the government's payment processing system (the Integrated Financial Information System, or IFIS) must undergo mandatory testing.

SAMS interfaces with IFIS for ODSP payments, so it should have undergone the mandatory testing. According to the Office of the Provincial Controller, SAMS is the only computer system ever connected to IFIS that has not done so.

The government's Enterprise Financial Services and Systems Division (EFSS), who performs this test, did a limited test to ensure that SAMS' payment file would not crash IFIS and that IFIS would issue the payments. However, EFSS could not perform all of the required tests. As a result, significant risks, such as the risk that a payment could go to the wrong person, remained untested.

When SAMS was launched, the first pay run essentially represented a complete test cycle. During this pay run, 28 serious defects were found, most of which the Ministry labelled as the highest severity that had broad system-wide impacts and resulted in some clients' not getting paid, duplicate payments being issued, and noticeable errors in printed cheque stubs.

We also noted that after launching SAMS, when major software upgrades are installed, SAMS is required to undergo the same government-mandated payment testing. This is because software upgrades risk making unwanted changes to payment files which can create errors and complications while processing payments. This risk can only be mitigated if the Ministry conducts testing. Although SAMS has been upgraded several times, we noted that the Ministry did not do these tests prior to installing the upgrades. Without proper testing, such errors are at risk of being re-introduced.

RECOMMENDATION 4

To ensure that the Social Assistance Management System (SAMS) reaches the high level of performance intended and that it functions in compliance with government requirements, the Ministry of Community and Social Services should ensure that SAMS undergoes and passes all government mandated payment testing.

MINISTRY RESPONSE

The Ministry agrees with the recommendation and recognizes that the strategy taken for this element of payment testing represented a condensed approach to address key risk.

The Ministry will work with the Office of the Provincial Controller, Treasury Board Secretariat and the Ministry of Government and Consumer Services to ensure that current and future SAMS changes requiring government mandated payment testing will adhere to the full end-to-end process. We will share lessons learned in this regard across government.

4.4.3 Executive Committee's Rationale for Launching an Unready SAMS

The Executive Committee told us that it considered the following risks if it delayed the launch of SAMS to be greater than launching a system that was not fully ready:

- The next available launch date would have been spring 2015. This would be the earliest time that a four-day shutdown of the existing system could be scheduled for data transfer with minimal disruption to Ontario Works and ODSP services. However, Ministry contracts with ODSP caseworkers were due for negotiation in spring 2015. There was therefore a risk that the launch would be pre-empted by labour negotiations and would have to be delayed even further.
- The Ministry trained caseworkers on SAMS in May 2014, six months before the planned launch. Although the Ministry provided additional, optional online training in the months following the original training and could continue to do so, the Executive Committee believed that delaying the launch to spring 2015 posed a risk that caseworkers would have forgotten their training and would find it much harder to use SAMS than as compared to November 2014.
- Pushing back the launch date would require the Ministry to ask the government for another project extension and more money (the amount requested would be considerable—every three-month extension costs about $20 million). Because the Ministry had already done this three times and still did not have a fully functioning system, they believed that, coupled with the other factors, there was a possibility that the government could refuse and decide instead to cancel the project altogether, cut its losses and start over again.

Executive Committee members told us that, given their understanding of SAMS' readiness (which included assessing the risks of launching SAMS in its current state), the risks of launching in November 2014 were lower than the risks of delaying.

However, as we explain in the next section, the Executive Committee did not know the whole story regarding SAMS' readiness.

4.4.4 Executive Committee Did Not Have the Whole Story about SAMS Readiness

The Executive Committee was not told the following with respect to SAMS' readiness:

- the number of serious defects in SAMS;

- the actual number of user acceptance tests conducted and their results;
- that not all interfaces were tested;
- the lack of testing done to compare daily pay runs in SAMS with the previous system; and
- the lack of testing of converted data.

Project Staff Did Not Disclose All Defects to Executive Committee

Project staff told the Executive Committee that SAMS had 418 serious defects, and that 217 of them could be handled by just 27 workarounds. However, we found that SAMS actually had 737 serious defects.

Ministry staff explained to us that the remaining 319 serious defects were not shared with the Executive Committee because they had started developing solutions or fixes for them. They also explained that these fixes were in various stages of development or testing, however they were not fixed before SAMS was launched and therefore continued to have an impact on SAMS.

Project Staff Conducted Fewer Tests than Reported, Results Incorrectly Stated

Project staff told the Executive Committee that 81% of planned test scenarios were executed. Go-live criterion 1 was for 90% of the planned test scenarios to be executed (see **Figure 6**). The Executive Committee felt that missing the criterion by just 9% was an acceptable risk. However, our review of documentation found that only 79% of planned test scenarios were executed.

The Ministry's original test plan included scenarios for testing all of SAMS' functions. However, a number of functions were not ready in time for user acceptance testing. They included the functions around generating a payment file after calculating a client's benefits. The payment file is sent to IFIS, which issues cheques. Because these functions were not ready, the Ministry revised the test plan, reducing the number of scenarios to only those that could be tested. This inflated the test results. While only 79% of the test scenarios in the original, complete test plan were executed, 81% of the test scenarios in the revised, shorter test plan were executed.

Project staff told the Executive Committee that SAMS produced the right result in 86% of the test scenarios executed. Go-live criterion 2 was for 90% of test scenarios executed to produce the right results (see **Figure 6**). The Executive Committee felt that missing the criterion by just 4% was an acceptable risk. However, we learned in interviewing the testers that wrong results were counted as right results as long as the wrong result was caused by a known defect. Testers were also not asked to record how many results they did this for, so the actual percentage of test scenarios producing the right result is not known.

Project staff told us that in these cases, they knew why the wrong result occurred and once the defect was fixed, SAMS would produce the right result. This view might be defensible if the Ministry had fixed all defects before launching SAMS, but it did not.

Executive Committee Did Not Know One in Eight Interfaces Not Tested

Interface testing with third parties determines if client data transfers correctly between SAMS and external computer systems. Project staff did not test 11 of the 85 interfaces, or about one in eight, and the Executive Committee did not know this.

One interface that was not tested informs caseworkers of individuals who are serving a prison sentence and should not receive benefits. As this interface did not function properly, caseworkers would not receive this information promptly to stop benefit payments to incarcerated clients. The Ministry issued a workaround for the problem and notified caseworkers about it in May 2015. By this time, however, SAMS had communicated incorrect information in more than 25,000 notifications regarding incarcerated clients. As a result, there was a high risk that payments to incarcerated clients had not stopped. While some of these payments may have been stopped because caseworkers become aware of the incarcerations through other means, we found several cases during our site visits where the payments had not been stopped. For example, one prisoner received $900.58 in benefit payments while incarcerated that would take 16 months to recover.

The 76 interfaces that were tested were divided into 17 test groups. Before launch, almost half of the groups had either not been completely tested or had unresolved transmission errors. One interface enabled client information to be transferred to external service providers that help ODSP recipients find jobs. Since this interface had several transmission errors when SAMS was launched, service providers faced the risk of not having the right information to contact these ODSP clients on time.

Executive Committee Did Not Know that Pay Runs Not Fully Tested

The Ministry tested SAMS' ability to issue correct payments several times prior to implementation by comparing its payments with those issued by the previous system. The last test was of the monthly pay run in October 2014, one month before launch. The monthly pay run issues 616,000 payments to clients, or about 77% of all client payments. These are for the many recurring benefits issued in set monthly amounts.

The remaining 23% of payments are issued in a daily run and include one-time benefit payments for things like medical supplies and advance payments. About 180,000 daily run payments are issued per month, totalling about $70 million.

The Executive Committee thought both runs had been fully tested before launch. It did not know that only the monthly pay run—and not the daily pay run—was fully tested, and that project staff were, therefore, not fully aware of what the results would be when SAMS did the first live daily pay run (although daily and monthly pay runs can issue similar payments, certain payments are issued only during the daily pay run).

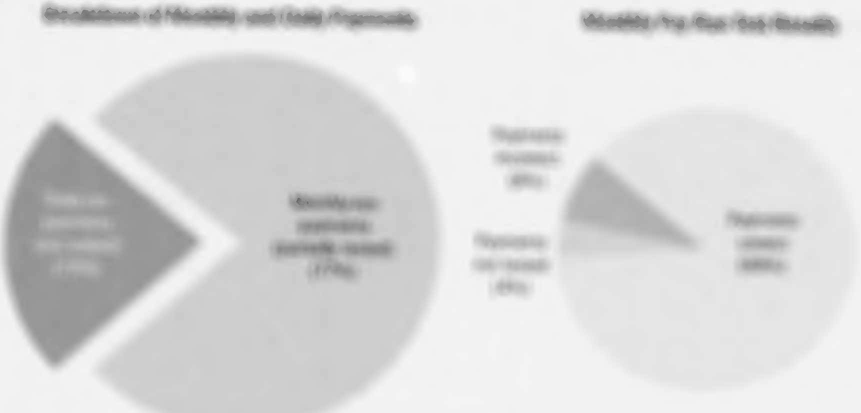
The Executive Committee also thought the monthly pay run had been fully tested, but it was not. Because some interfaces and the function that suspends payments under certain conditions were still not functioning in October 2014, about 35,000 payments in the monthly run were excluded from testing.

Of the about 580,000 monthly run payments that were tested, about 52,000, or 9% of the run, were incorrect because of defects in SAMS (that is, SAMS incorrectly issued overpayments, underpayments, or no payments at all).

Figure 6 shows a detailed breakdown of the testing and the results.

Figure 6: Breakdown of Pay Runs into Monthly and Daily Payments, and Testing Results, October 2014

Prepared by the Office of the Auditor General of Ontario



The Executive Committee thought that testers had found only about 6,000 discrepancies (that related to SAMS' defects) between the actual monthly pay run of the existing system and SAMS' test run. It believed that case workers would be able to work around these discrepancies when SAMS did its first live pay run and ensure clients received the correct benefits.

However, testers actually found about 52,000 discrepancies, which caseworkers had little hope of managing in the first pay run.

Project staff told us it fixed some of the defects causing incorrect payments before launch but did not have time to retest the pay run to confirm the fixes worked. However, as discussed in **Section 4.2.4**, the adequacy of fixes had been shown to be far from certain, and can only be assured through testing. We also found that one of the defects that the Ministry told us had been fixed before the pay run test was conducted, had in fact not been fixed and continued to generate incorrect payments.

Executive Committee Did Not Know that Converted Data Was Not Fully Tested And How Many Errors It Contained

The Ministry specifically identified data in 51 screen fields that should be cleaned up from the previous system so that when this data is transferred into SAMS, it does not cause errors in processing clients' eligibility and benefit payments. Ideally, converted data should be checked in all 51 fields. However, the Ministry tested converted data in only 14 prioritized fields. The Executive Committee did not know this.

In the 37 fields that were not tested, caseworkers found errors after launch that led to:

- **Breaches of client privacy:** Whether a client's address was correctly converted into SAMS was not tested. Caseworkers told us of several instances where improperly converted data led to client addresses being disclosed to people who should not have access to this private information. For example, the Ministry estimated that in about 7,000 cases, IBM data converters mistakenly re-linked together the files of previously-linked individuals such as divorced couples. When their data was transferred into SAMS, the ex-spouses' personal information was available to one another. In one example, an abusive ex-husband gained access to his ex-wife's address when he applied for social assistance.
- **Deletion of 78,000 income records:** Whether clients' historical income information was correctly converted into SAMS was not tested. As mentioned in **Section 4.3.1**, IBM data converters incorrectly deleted 78,000 such records when transferring them to SAMS clients whose records were lost would not have been eligible for benefits, and SAMS would automatically suspend their accounts. To prevent this from happening, the Ministry installed a fix just before the pay run so these clients could still receive their benefits.

In the 14 fields that were tested, about 29,000 errors were found (these were discussed previously in **Section 4.3.1**).

4.4.5 Project Staff and Executive Committee Assumed a High Degree of Risk

As mentioned in **Section 4.4.3**, the Executive Committee told us it thought in October 2014 that it was too risky to ask the government for permission to postpone the launch of SAMS because SAMS was not ready. It worried that the government might finally put a stop to the project, which was increasingly over-budget and had already been repeatedly postponed. However, launching SAMS before it was ready was also very risky. As this report has described, it resulted in the following problems, none of which had been fully solved when we completed our audit:

- mistakes in payments and information sent to clients;

- reduced service to clients because of the time taken to identify, work around and/or correct these mistakes;
- inaccuracies in SAMS generated reports; and
- issues with integrity of the data in the system.

In this section, we highlight two factors that magnified the risk that project staff and the Executive Committee assumed. In our view, they contributed to what proved to be an unjustified optimism that the SAMS launch would go reasonably smoothly and that any problems would be manageable.

Roles and Responsibilities Shifted Just Prior to Launch

Six months before launch, there was a shift in the roles, responsibilities and reporting relationships of the business and technical teams. The technical staff testing the readiness of SAMS moved from reporting to the Technical Project Director to reporting to the Business Project Director.

The Ministry informed us that the change in testing responsibility was made to resolve workload issues. However we noted that both the business team and the technical team were equally occupied with preparing for launch. We also noted that after the launch of SAMS, the testing team went back to reporting to the Technical Project Director.

The result was that the expertise of the Technical Project Director was not considered with respect to test completion and test results when SAMS' readiness was assessed and the decision to go live was approved. The Business Project Director who oversaw the technical staff conducting the last six months of testing before launch did not have the Technical Project Director's technical expertise. This six-month period of changed roles and responsibilities was critical, because information about the tests conducted on SAMS and their results was gathered and shared with the Executive Committee during this time to support the decision to launch SAMS.

Internal Audit Did Not Audit SAMS' Readiness for Launch

All ministries are served by an internal audit team that is part of the Ontario Internal Audit Division (Internal Audit). Internal Audit's mandate is to help ministries achieve their business objectives by proactively consulting on, evaluating and improving risk management, controls and governance.

Four months before launch, Internal Audit met with SAMS' project leads and proposed that they audit SAMS' readiness for launch. However, Internal Audit and the project leads could not agree on the scope of the audit. Internal Audit told us that the Ministry believed the IBM consultants on the project team had all the expertise needed to advise on SAMS' readiness for launch. It suggested that Internal Audit's scope of work should rather focus on SAMS after launch.

Internal Audit did conduct audit work on the SAMS project, but the last report it issued, in November 2013, was a full year before launch. When we completed our audit that was the last audit they had conducted.

Executive Committee Accepted the High Degree of Risk Based on Risk Assessment Conducted in October 2014

The project team (with technical testing still reporting to the Business Project Director) and an IBM senior executive conducted a risk assessment during the last two weeks of October 2014. They concluded that the risks of launching a system that did not fully meet the go-live criteria should be accepted and launch should go ahead.

Senior project staff and other members of the executive committee presented the results against the go-live criteria and the accompanying risk assessment to the co-chairs of the Executive Committee, whose approval was needed to launch SAMS.

The Executive Committee accepted the risk assessment's recommendation and on October 31, 2014, approved the November 11, 2014, launch.

RECOMMENDATION 5

In order to improve the decision-making process used to launch a major information system, the Ministry of Community and Social Services should:

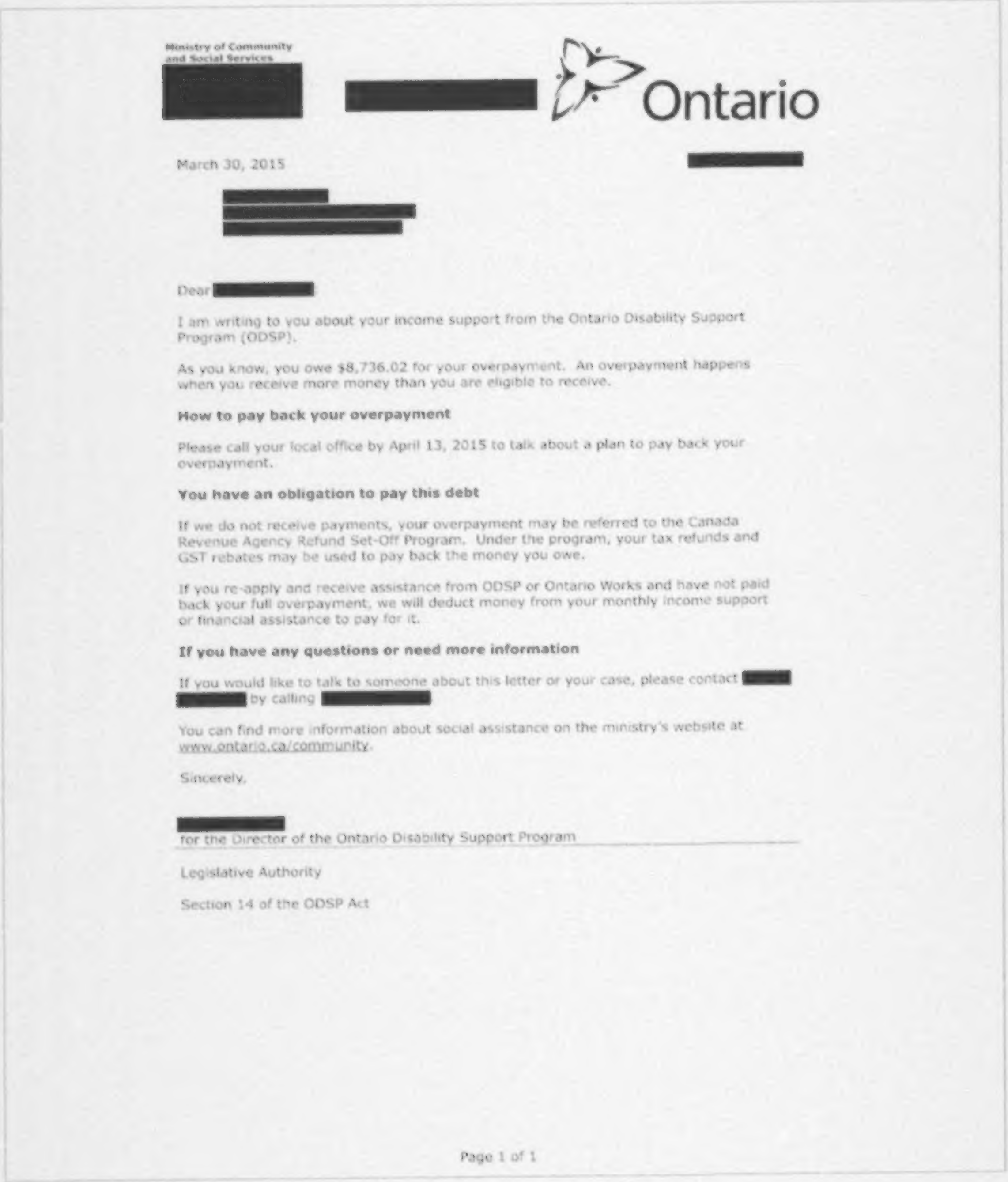
- ensure that the decision to launch an information technology system is based on relevant criteria and information that provides decision-makers a complete and accurate status of system readiness; and
- have Internal Audit independently review key information used in assessing the system's state of readiness while making the decision to launch.

MINISTRY RESPONSE

The Ministry agrees with the recommendation and will ensure that all information that is provided to decision makers will include a complete and accurate status of system readiness that is independently assessed by an internal audit. In addition, the Ministry will ensure an increased role for internal audit in assessing the readiness of major information systems prior to making a decision to launch a system. This would be in addition to the advisory role played by the Executive Committee and internal audit on specific engagements earlier in the project lifecycle of SAMS.

Appendix—Example of a Letter with Incorrect Information Sent to an ODSP Client

Source of data: One ODSP office visited



Ministry of Community
and Social Services
[redacted]

[redacted] Ontario

March 30, 2015 [redacted]

[redacted]

Dear [redacted]

I am writing to you about your income support from the Ontario Disability Support Program (ODSP).

As you know, you owe $8,736.02 for your overpayment. An overpayment happens when you receive more money than you are eligible to receive.

How to pay back your overpayment

Please call your local office by April 13, 2015 to talk about a plan to pay back your overpayment.

You have an obligation to pay this debt

If we do not receive payments, your overpayment may be referred to the Canada Revenue Agency Refund Set-Off Program. Under the program, your tax refunds and GST rebates may be used to pay back the money you owe.

If you re-apply and receive assistance from ODSP or Ontario Works and have not paid back your full overpayment, we will deduct money from your monthly income support or financial assistance to pay for it.

If you have any questions or need more information

If you would like to talk to someone about this letter or your case, please contact [redacted] by calling [redacted]

You can find more information about social assistance on the ministry's website at www.ontario.ca/community.

Sincerely,

[redacted]

for the Director of the Ontario Disability Support Program

Legislative Authority

Section 14 of the ODSP Act

Page 1 of 1

Chapter 3

Section

3.13

Ministry of Education

Student Transportation

1.0 Background

1.1 Overview

In the 2013/14 school year, over 830,000 Ontario students were transported daily to and from publicly funded schools on approximately 19,000 school vehicles such as school buses, vans and cars. Almost all student transportation in Ontario is provided through contracts with school bus operators, and more than 70% of the children transported were in kindergarten or elementary school.

All school boards in the province provide some level of transportation services to elementary students, and most provide service to secondary students. *The Education Act* (Act) does not explicitly require school boards to provide transportation services. However, section 21 (2)(c) of the Act excuses a child from attending school if transportation is not provided by a school board and there is no school situated within the following distances from the child's residence:

- 1.6 kilometres for children under 7 years of age;
- 3.2 kilometres for children aged 7 to less than 10 years of age; and
- 4.8 kilometres for children over 10 years of age.

School boards base their students' eligibility for transportation services to a large extent on the distance from home to school. **Figure 1** shows the number of students transported in 2013/14, the last year for which data is available, by type of program or need.

Figure 1: Number of Students Transported, Broken Down by Type of Program or Need, 2013/14

Source of data: Ministry of Education, Student Transportation Survey for 2013/14

Type of Program or Need	#	%
Students without special needs		
General programs (students meet distance eligibility criteria)	570,014	68.3
Special programs – French Immersion	114,210	13.7
Special programs – other (eg., gifted, arts, music, technical)	18,720	2.2
Hazard (not eligible based on distance but hazardous walk for age/grade)	55,626	6.7
Courtesy (not eligible based on distance but empty seats are available)	33,323	4.0
Subtotal	**791,893**	
Students with special needs	39,798	4.8
Other (Section 23 schools and provincial schools*)	2,538	0.3
Total	**834,229**	**100.0**

* Section 23 schools are correctional and custodial facilities. Provincial schools are operated by the Ministry of Education and provide education for students who are deaf or blind, or have severe learning disabilities.

1.2 Roles and Responsibilities in Providing Student Transportation

Figure 2 illustrates the roles and responsibilities of the parties involved in transporting Ontario students to and from school.

1.2.1 Ministry of Education

The Ministry of Education (Ministry) provides funding to school boards through the Student Transportation Grant. It also conducts an annual survey of school boards on student transportation services across the province. The survey is completed and its results are provided to the Ministry by the transportation consortia. According to the Ministry, the survey is intended to support policy development by the Ministry and decision-making by school boards and consortia.

Between 2006 and 2011, the Ministry used external consultants to conduct initial effectiveness and efficiency reviews on the operations of transportation consortia in four areas: consortium management; development and implementation of policies and practices; routing and technology; and contract management. It used the overall rating as the basis for determining adjustments to transportation funding for boards that run a deficit in their transportation spending. The Ministry will conduct a follow-up review if the consortium that requests a review can demonstrate significant progress in implementing the recommendations made in the initial review.

1.2.2 School Boards

There are 72 school boards in the province. The Ministry of Education gives school boards autonomy and authority for student transportation. The boards are responsible for overall decisions related to providing student transportation, including establishing policies and eligibility criteria.

1.2.3 Transportation Consortia

There are 33 transportation consortia in the province. A transportation consortium is an organization formed by two to five school boards operating in the same geographical area (such as public, Catholic, French or English boards). To limit costs and increase efficiency in student transportation, the Ministry of Education in the 2006/07 school year asked all school boards to begin consolidating transportation functions into consortia that would provide services to boards in the same geographical areas; a few boards had already formed consortia at that time. At the time of our audit, all school boards, except one northern French Catholic board, were part of a consortium. Seventeen school boards are in more than one consortium because of overlapping boundaries. Consortia are responsible for:

- administering transportation policies of member school boards;
- planning transportation services (designing routes; identifying eligible students; determining student pickup and drop-off locations and times; managing student information needed by school bus operators);
- contracting with school bus operators to provide student transportation services;
- managing contracts with school bus operators, including monitoring service performance; and
- performing audits on school bus operators to ensure compliance with legislation and regulations, and with their contracts.

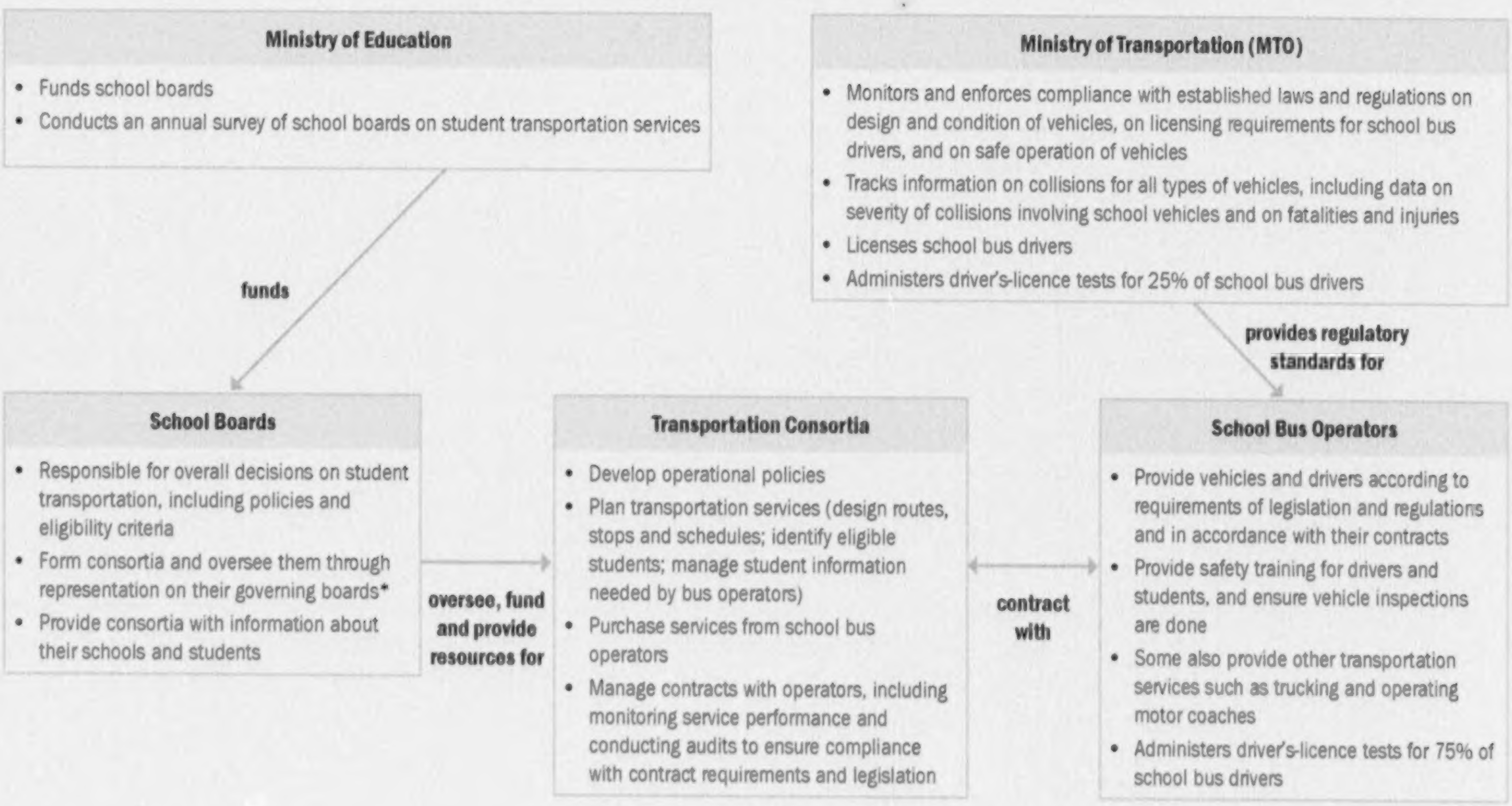
School boards are represented on the consortia's governing boards to provide oversight, and they provide consortia with key information about their schools and students (such as name, age, address and special needs).

1.2.4 School Bus Operators

There are more than 200 school bus operators in the province providing publicly funded student transportation services. School bus operators are

Figure 2: Roles and Responsibilities of Parties Involved in Ontario Student Transportation

Prepared by the Office of the Auditor General of Ontario



Ministry of Education

- Funds school boards
- Conducts an annual survey of school boards on student transportation services

Ministry of Transportation (MTO)

- Monitors and enforces compliance with established laws and regulations on design and condition of vehicles, on licensing requirements for school bus drivers, and on safe operation of vehicles
- Tracks information on collisions for all types of vehicles, including data on severity of collisions involving school vehicles and on fatalities and injuries
- Licenses school bus drivers
- Administers driver's-licence tests for 25% of school bus drivers

School Boards

- Responsible for overall decisions on student transportation, including policies and eligibility criteria
- Form consortia and oversee them through representation on their governing boards*
- Provide consortia with information about their schools and students

Transportation Consortia

- Develop operational policies
- Plan transportation services (design routes, stops and schedules; identify eligible students; manage student information needed by bus operators)
- Purchase services from school bus operators
- Manage contracts with operators, including monitoring service performance and conducting audits to ensure compliance with contract requirements and legislation

School Bus Operators

- Provide vehicles and drivers according to requirements of legislation and regulations and in accordance with their contracts
- Provide safety training for drivers and students, and ensure vehicle inspections are done
- Some also provide other transportation services such as trucking and operating motor coaches
- Administers driver's-licence tests for 75% of school bus drivers

funds
provides regulatory standards for
oversee, fund and provide resources for
contract with

* One school board is not part of a consortium and manages transportation services directly.

contracted by consortia to transport students. They are responsible for ensuring their vehicles and drivers meet requirements set out in legislation and regulations (such as having semi-annual vehicle inspections for mechanical fitness and maintaining drivers' daily log books, which record hours of service, breaks taken and mileage driven), and for complying with provisions set out in their contracts (such as providing safety training for drivers and students, and conducting background checks for drivers).

In the 2012/13 school year (the most recent year that this information was compiled), 19 school bus operators were each paid at least $5 million for transporting students attending publicly funded schools. Two of these operators received 40% of the total of about $760 million paid to all operators for home-to-school transportation.

1.2.5 Ministry of Transportation

The Ministry of Transportation (MTO) enforces federal and provincial laws and regulations that relate to the design and mechanical condition of vehicles, licensing requirements for school bus drivers and the safe operation of vehicles.

MTO has about 90 people employed in the Carrier Safety and Enforcement Branch in St. Catharines. These staff promote the safe operation of commercial vehicles in Ontario. This includes monitoring compliance with legislation for all types of vehicles, not just school vehicles. In addition, some of the approximately 250 enforcement officers located across the province conduct safety inspections of commercial vehicles (including school buses), conduct audits at the premises of commercial operators (including school bus operators) and investigate privately owned Motor Vehicle Inspection Stations, which inspect commercial and non-commercial vehicles (including school vehicles) for mechanical fitness.

1.3 Funding and Expenditures for Student Transportation

For the 2013/14 school year, the most recent year for which this information has been finalized, transportation grants to school boards totalled $867 million, or about 4% of the $21 billion of total operating funding available to school boards. Transportation grants are estimated to be $880 million for the 2014/15 school year, as shown in **Figure 3**.

Figure 3: School Board Funding, Actual Transportation Expenditures and Number of Students Transported, 2008/09–2014/15

Source of data: Ministry of Education, Education Financial Information System, and Student Transportation Survey

School Year	Total School Board Operating Grant ($ million)	Transportation Grant ($ million)	Transportation Grant as a % of Total Operating Grants	Actual Transportation Expenditures* ($ million)	Students Transported (#)
2008/09	18,892	816.0	4.3	815.2	817,918
2009/10	19,537	827.6	4.2	825.7	818,189
2010/11	20,271	839.8	4.1	840.6	824,024
2011/12	20,985	852.5	4.1	858.1	823,462
2012/13	20,967	850.0	4.1	852.9	833,685
2013/14	20,768	866.6	4.2	861.7	834,229
2014/15 estimate	22,449	880.0	3.9	Not yet available	Not yet available

* When actual expenditures exceed grants received, school boards whose consortia have an effectiveness and efficiency review rating of moderate and above will receive, in whole or in part, additional funding to cover the shortfall in the year of review. This effectively resets the transportation funding in subsequent years. Otherwise, school boards have to make up the shortfall from other program areas.

Figure 4: Breakdown of Student Transportation Expenditures, 2013/14

Source of data: Ministry of Education, Student Transportation Survey for 2013/14

Expenditure	%
Contracted school vehicle services*	94
Consortium management	4
Student safety training and other	2
	100

* Includes the cost of using taxis and public transit, which is covered by school boards.

Grants to school boards, including the student transportation grant, are calculated in accordance with regulation, and are initially based on budgets/estimates submitted by school boards in June for the upcoming school year (September to August). Grant amounts are revised in December when updated financial and enrolment information is received. The grant amount is finalized after school boards submit audited financial statements the following November.

As seen in **Figure 4**, over 90% of expenditures on student transportation are payments primarily to contracted bus operators. The remaining expenditures are for consortium management, student safety training and other costs. However, according to the Ministry of Education, school boards are free to use any portion of the transportation grant for non-transportation-related items such as classroom expenses (for example, textbooks) or non-classroom expenses (for example, school office supplies or administrative costs). Most other education funding components are also administered by the Ministry in a similar fashion.

2.0 Audit Objectives and Scope

The objectives of our audit were to assess whether effective systems and procedures were in place to safely and efficiently transport elementary and secondary school students; ensure the level of service across the province is equitable and based on need; and measure and report on performance in this regard.

Audit work was primarily conducted at three transportation consortia and the Ministry of Transportation, and to a lesser extent at school boards and the Ministry of Education. At the consortia, we reviewed their transportation planning, including the eligibility criteria applied; bus utilization; safety provisions included in contracts with school bus operators; training of students on riding the bus safely; oversight practices for ensuring operators maintain their vehicles and hire and train competent drivers; and whether collisions are tracked and analyzed. As well, we looked at the process used by consortia to develop efficient and safe routes. We also reviewed procurement practices used to acquire their current transportation services. The three consortia we visited were from two different regions and administered transportation services for a total of nine school boards. In the 2013/14 school year, these consortia accounted for almost 20% of student transportation costs incurred and students transported in the province, as shown in **Figure 5**.

We also sent a survey to the remaining 30 consortia across the province on key issues we identified during our consortium visits. All consortia responded to our survey.

At the Ministry of Transportation (MTO), we reviewed the frequency of ministry inspections of school buses, audits of school bus operators and investigations of privately owned Motor Vehicle Inspection Stations that conduct semi-annual mechanical inspections of school vehicles which carry six or more children. As well, we gained an understanding of the school bus driver licensing process, and assessed whether safety performance data, tracked by MTO (through its Commercial Vehicle Operator's Registration System—CVOR) and relied upon by consortia, is accurate and up to date.

Figure 5: Details on Transportation Consortia Selected for Audit

Source of data: Ministry of Education

Consortia Visited	School Boards in Consortium	Type of Area Served	Jurisdictions in Area Served	Students Transported, 2013/14	Actual Transportation Costs, 2013/14 ($ million)
Toronto Student Transportation Group	Toronto District School Board Toronto Catholic District School Board	Urban	Toronto	54,600	81.6
Student Transportation of Peel Region	Peel District School Board Dufferin-Peel Catholic District School Board	Predominantly urban with some rural areas	Mississauga, Brampton, Caledon	64,000	54.4
Sudbury Student Services Consortium	Rainbow District School Board Conseil scolaire du district du Grand Nord de l'Ontario Sudbury Catholic District School Board Conseil scolaire catholique du Nouvel-Ontario Huron-Superior Catholic District School Board[1]	Predominantly rural with some urban areas	Greater Sudbury, Espanola, Manitoulin	21,300	26.5
Total				**139,900[2]**	**162.5[3]**

1. Huron-Superior Catholic District School Board is not a member of the Sudbury Student Services Consortium but it contracts services from the consortium.
2. This represents 17% of the total 834,229 students transported province-wide in 2013/14.
3. This represents 19% of the total $861.7 million in actual transportation costs province-wide in 2013/14.

At the school boards, we met with senior school board management and select school board trustees to discuss their oversight of the consortia.

At the Ministry of Education, we reviewed the adequacy of the effectiveness and efficiency reviews of consortia and the basis for funding student transportation services. We also reviewed information obtained from the Ministry's annual transportation surveys of school boards.

We also met with members of the Transportation Committee of the Ontario Association of School Business Officials, whose members include consortium management; representatives from the Ontario School Bus Association and the Independent School Bus Operators Association, which advocate on behalf of school bus operators; and representatives from a union that represents almost 1,800 school bus drivers.

We also met with Colin Campbell, a retired Justice of the Ontario Superior Court, who in October 2014 was contracted by the Education Minister to chair an expert panel to identify best practices and explore options for acquiring student transportation services (other than requests for proposals for competitive procurement) that are in compliance with government procurement directives. At the time we were drafting this report, the review panel had not yet issued its report.

3.0 Summary

School vehicles are generally considered to be a safe mode of transportation based on the number of collisions in relation to the number of passengers transported and kilometres travelled. The Ministry of Transportation reported that over the last five years, school vehicles have been involved in 5,600 collisions that have resulted in property damage, personal injuries and fatalities. Overall, in Ontario the risk of personal injury from collisions involving school vehicles is lower than for other types of vehicles, and the risk of fatalities is similar to that for all other types of vehicles. However, in 2013, the latest year for which information is available, Ontario's school vehicles were involved in more collisions proportionately than automobiles and trucks but fewer than other types of buses, based on total number of vehicles by type. Specifically, 12% of school buses were involved in collisions, compared to 4% of automobiles, 2% of trucks and 16% of other buses. The police determined that the school bus driver was at fault in 40% of the cases; the bus driver was not at fault in 54% of cases and in 6% of cases the cause of the collision could not be determined.

Only limited information is being tracked by consortia on incidents impacting children such as late buses and mechanical breakdowns of vehicles. With the limited information available to us during our audit, we noted an increase in such incidents between 2012/13 and 2013/14.

Nevertheless, the potential of risk to students being transported makes it important that the Ministry of Education, school boards and transportation consortia, and the Ministry of Transportation continue to consider and minimize risk factors in three key areas that impact the safe transport of students: bus driver competence, vehicle condition and student behaviour. Based on our audit we concluded that better oversight of bus operators and their drivers, better processes for ensuring the safe operation of school vehicles, better training for students in bus safety, and better tracking and analysis of collisions and incidents may even further reduce risks to students.

Safe Transport of Students

The following are some of our key observations regarding the safe transport of students:

- **Better oversight and monitoring needed to ensure school bus driver competence.** Although there is a rigorous process for licensing school bus drivers and renewing their licences every five years, we noted weakness in the consortia's oversight processes to determine if drivers were competent. Consortia we visited normally gave bus operators advance notice of all operational reviews, and one consortium let school bus operators select the driver files to be reviewed. Part of the review included route audits to verify that bus drivers follow the planned route, stop at all assigned stops and perform their duties safely. We noted that route audits were infrequent and, in the case of one consortium, ineffective, as the driver was aware of the audit because the assessor would ride along on the bus as opposed to following the bus without the driver knowing. When the reviews did uncover issues such as some drivers not having the required criminal record screening checks, only one of the three consortia we visited was reasonably diligent in ensuring that the operators rectified the problems noted.
- **Improvements needed in ensuring school vehicles are in good condition.** Contracts with school bus operators stipulate the maximum and average age permitted for a school bus. Our review at the three consortia we visited noted that most vehicles were under the maximum age of 12 years, but each consortium had operators using at least one type of vehicle that exceeded the average age requirement (typically seven years). We noted that the process used by consortia to determine if school vehicles were in good condition was weak. Only two consortia visually inspected the condition of school buses, and they selected for inspection only a small number of those buses that were on site on the day

of the inspection. Similarly, the Ministry of Transportation's inspection process for school vehicles needs improvement. We noted that it was not targeting those vehicles most at risk for safety violations, performing inspections on a timely basis, or ensuring that defects noted during inspection were fixed.

- **Ministry of Transportation not aware of all school buses on the road.** The number of school vehicles recorded in the Ministry of Transportation's bus inspection tracking system was less than the number of school vehicles contracted by transportation consortia. In the 2013/14 Ministry of Education survey, the consortia reported to the Ministry of Education that they had contracted about 19,000 school vehicles from operators; the system, however, lists only about 16,000. The number of school vehicles in the system should be much higher than the number contracted by consortia because it should also include school vehicles used by private schools and other organizations.
- **Little oversight of school bus operators that are allowed to certify their own buses for mechanical fitness.** The Ministry of Transportation allows licensed privately operated Motor Vehicle Inspection Stations, including those operated by school bus operators, to conduct semi-annual mechanical inspections of school buses and certify them. The Ministry of Transportation provides little oversight of these stations to ensure they conduct thorough inspections. We found that over the last five years only 12 stations belonging to school bus operators had been inspected by the Ministry of Transportation.
- **The Ministry of Education has not mandated a bus safety training requirement for students riding school buses.** It is up to each consortium to determine whether or not it will offer bus safety programs to its students, and which programs to offer. Only 16 of 33 consortia in the province had made general school bus safety training mandatory, and only five had mandatory orientation for new riders.
- **Many consortia were not collecting their own information on collisions and incidents involving school vehicles to identify problems and take corrective action.** Only four of 33 consortia were able to provide us with statistics on all the categories of incidents that we requested, and only half were able to provide us with complete information on collisions. Incidents include buses breaking down or dropping students off at the wrong stop, student injuries and behaviour issues, and other problems. The Ministry of Education has not set any guidelines for the reporting of school vehicle collisions and incidents among consortia, to enable analysis of their causes and to develop strategies to prevent them in the future.

Efficient Transportation of Students

Our audit noted differences in how transportation consortia operated and managed student busing services—for example, in the degree to which they employed efficiency strategies, in the level of service provided and in costs per student transported. We noted that the ability of a consortium to efficiently and effectively manage transportation services is impacted by the level of authority delegated to it by the school boards it serves, and the willingness of school boards to work co-operatively and integrate services. Although consortia have implemented efficiency measures to varying degrees to improve the efficiency of school transportation services and, in turn reduce costs, they could be doing more.

Our key observations regarding the efficient delivery of service, the level of service provided, funding and procurement practices are as follows:

- **Funding for school transportation is not based on need.** Instead, it is based on each board's 1997 spending level, with annual adjustments for enrolment and inflation, and other minor adjustments such as fuel costs and safety initiatives. The Ministry of Education's funding formula does not take into account local factors that can significantly influence transportation costs, such as enrolment density, geography, the availability of public transit, the number of students with special needs, and hazards on the route. In 2008, the Ministry began testing a new funding formula based on need. However, due to significant pushback, especially from boards that expected to get less, the Ministry abandoned the new funding model and continued with the status quo.

- **School busing is not available on an equal basis to students across the province.** There are significant differences in student eligibility for busing services across the province. For example, three boards do not provide busing services to secondary students who do not have special needs. The percentage of students for whom consortia have arranged school transportation varies significantly between boards, from 10% to 87%. This results from differences in geography, student population density and availability of public transit, but the boards' differing eligibility criteria are also a factor. We noted that eligibility criteria for busing even varied among school boards served by the same consortium and among schools within the same board. Ontario has no provincial eligibility standard for busing, and, as a result, school boards can determine which groups of students they will provide transportation for and spend their funding on.
- **Although the cost of transporting students varies widely among school boards, the Ministry of Education has not followed up with the boards to determine if these variances are justified.** The average cost to transport a student without special needs, based on the Ministry's 2013/14 student transportation survey, was $780, with a range between boards of $302 to $1,080. The average cost to transport a student with special needs was $4,650, with a range between boards of $1,045 to $11,205. A significant portion of this disparity is due to differences in geography, student population density and other local factors. But the Ministry has not determined if the disparity is also partly due to inefficiencies in providing busing services such as, not optimizing route planning software and co-ordinating common days off between school boards.
- **Reliable bus utilization data is not available.** In general, consortia did not have reliable bus utilization statistics because they did not typically track the number of riders. In addition, each consortium set its own capacity for a bus and used different methods to calculate the utilization rate. Consortia usually based the number of buses needed on the number of students eligible for busing. However, head counts that drivers performed on three consecutive days at one consortium we visited showed that only about 70% of the students it had planned would use school transportation were actually using the service. This may indicate that the consortium had excess capacity and was incurring unnecessary costs.
- **Consortia are contracting for more bus services than they actually need.** Two of the consortia we visited were using their buses less than the time negotiated in their contracts with bus operators. For example, one consortium had negotiated a base rate for three hours a day for its large buses, but we found that it used about two-thirds of these buses for two hours or less each day. The consortium could save money if it contracted fewer buses and used them for additional trips.
- **Only about 50% of the consortia in the province had competitively procured their current transportation services.** The last time one consortium we visited had

competitively procured busing services was in 2006. We reviewed the latest competitive procurement process followed by each of the three consortia we visited and noted that, although all had evaluated qualitative factors, only two consortia based their selection decision on both quality and price. One consortium had selected school bus operators entirely on price. The two that considered both qualitative factors and price weighted qualitative criteria at 65% and criteria related to price at 35%, which is in line with best practice information we received from Supply Chain Ontario (the government's procurement experts). We would have expected all three consortia to allocate high marks to safety-related criteria. But we noted that the weighting of safety criteria varied significantly among the three consortia, ranging from a high of 65% to a low of 20% of the total qualitative score.

This report contains 11 recommendations, consisting of 31 actions, to address the findings noted during this audit.

OVERALL RESPONSE FROM THE MINISTRY OF EDUCATION

Elementary and secondary education in Ontario is governed by the *Education Act*, which states that school boards are self-governing bodies. They are responsible for developing programs and policies, including those for transportation, that meet their local needs. The Ministry will encourage and support the Ontario Association of School Business Officials Transportation subcommittee to address these issues at a provincial level.

OVERALL RESPONSE FROM THE MINISTRY OF TRANSPORTATION

The Ministry of Transportation appreciates the insights and recommendations of the Auditor General and is strongly committed to continuously improving the safety of all commercial vehicles operating in Ontario, including school buses and other school-purpose vehicles.

The Ministry believes that it's school bus inspection program is among the most comprehensive and stringent in North America, and the recommendations from this report will help build on the improvements and initiatives that are already under way.

4.0 Detailed Audit Observations

4.1 Oversight Processes for Safety Can be Improved

School vehicles are generally considered to be a safe mode of transportation, as compared to other vehicles, based on the number of collisions in relation to the number of passengers transported and kilometres travelled. Even so, over the years school vehicles have been involved in collisions that have resulted in student fatalities, injuries and property damage.

The Ministry of Transportation (MTO) reports on collisions for all types of vehicles, including school vehicles, based on police reports. In its Ontario Road Safety Annual Report, MTO reports collisions that result in a fatality or injury, or where the damage to property is $1,000 or more. We reviewed collision data involving school vehicles during school days from September to June inclusively, for the latest five-year period for which information was available (2008/09–2012/13). As shown in **Figure 6**, the number of collisions involving school vehicles has been relatively constant over the last four years. The risk of collisions resulting in death is 0.2%, which is similar to that for all vehicle types combined. However, the risk of collisions resulting in personal injury is comparatively lower at 10% for school vehicles compared to 23% for all vehicle types combined. Over the same period, school bus drivers were found to be at fault in about

Figure 6: Collisions on School Days Involving School Vehicles

Source of data: Ministry of Transportation

	Severity of Collision*							
	Fatalities		Personal Injury		Property Damage		Total Collisions	
School Year	#	%	#	%	#	%	#	%
2008/09	7	0.6	185	14.3	1,100	85.1	**1,292**	**100**
2009/10	2	0.2	154	14.5	903	85.3	**1,059**	**100**
2010/11	–	0.0	162	14.0	992	86.0	**1,154**	**100**
2011/12	3	0.3	154	15.3	848	84.4	**1,005**	**100**
2012/13	2	0.2	150	13.5	956	86.3	**1,108**	**100**
Total	**14**		**805**		**4,799**		**5,618**	
5-Year Average	**3**	**0.2**	**161**	**14.3**	**960**	**85.4**	**1,124**	**100**

* Any collision that resulted in more than one category of severity (e.g., Personal Injury and Property Damage) is recorded once in the most severe category (e.g., Personal Injury).

40% of these cases. This is slightly better than the at fault rate of about 45% for drivers of all other vehicles. In 2013, the latest year for which information is available, Ontario's school vehicles were involved in more collisions proportionately than automobiles and trucks but fewer than other types of buses, based on total number of vehicles by type. Specifically, 12% of school buses were involved in collisions, compared to 4% of automobiles, 2% of trucks and 16% for other buses.

Transporting students safely is influenced by three key factors, discussed below:

- bus driver competence;
- vehicle condition; and
- student behaviour.

4.1.1 Driver Competence and Vehicle Condition

Both the transportation consortia and the Ministry of Transportation play a role in ensuring proper vehicle condition and driver competence in order to minimize risks in transporting students.

Transportation Consortia

Transportation consortia contract with school bus operators that provide student busing services. The consortia conduct annual operational reviews on operators to confirm driver competence, vehicle safety, and compliance with contract requirements. To help ensure driver competence, consortia verify that drivers have valid licences, have had a criminal record check, meet training requirements, and do not exceed the legislated maximum hours on the road. They also follow drivers on a route to see if they are following the route correctly and obeying consortium safety policies when picking up and dropping off students.

To help ensure vehicle safety, consortia test a sample of school vehicles to see if they have undergone the required preventative maintenance checks, pre-trip inspections (where the driver checks the vehicle prior to each trip) and semi-annual mechanical inspections. Their contracts with school bus operators contain vehicle age requirements.

School Bus Driver Credentials and Training

In general, a school bus driver requires a licence (class B or E) in addition to a G class driver's licence. A driver must have successfully completed a knowledge test, road test, vision test, criminal record check and the school bus driver improvement course, and submitted a medical report. Applicants also must not have accumulated more than six demerit points.

Licences for school bus drivers are renewed every five years. The renewal process requires drivers to complete a vision and knowledge test and submit a medical report. Drivers aged 46–64 must submit more frequent medical reports, every three years, and drivers 65 years and older must submit a medical report every year.

Unable to Correlate the Impact of School Bus Driver Turnover with Safety

We were told by transportation consortia, school bus operators and a union representing school bus drivers about their concerns over the increase in driver turnover over the years. These groups felt that driver continuity and familiarity with the route and the students on the bus is critical to student safety. We reviewed the turnover rates provided by all school bus operators servicing the three consortia we visited and noted that they ranged from 14% to 27% in 2013/14. We compared these rates to different indicators of safety at the consortia, such as accidents and incidents on the bus, and did not find a correlation. However, as noted in **Section 4.1.4**, information on incidents and collisions is not well tracked in general and may not be reliable for this potentially useful comparison.

Some Bus Operators Use Buses That Are Older Than Their Contracts Require

Maintenance costs and safety concerns increase as vehicles get older. In order to reduce the risk of using unsafe vehicles, the consortia we visited included requirements in their contracts with bus operators outlining the maximum age permitted for school vehicles used to transport students, as well as the vehicles' average age. We reviewed a number of contracts at the three consortia and noted that they usually stipulated a maximum age of 12 years and an average age of seven years for the bus type and per operator. Our review noted that most vehicles were under the maximum age, but at each consortium we identified operators using at least one type of vehicle that exceeded the average age requirement. Specifically, one-third of the operators at one consortium we visited and all the operators at another consortium have at least one type of bus that exceeded the average age.

Weaknesses in Operational Reviews of Bus Operators Conducted by Consortia

We had a number of concerns with the annual operational reviews conducted by the three transportation consortia we visited. Overall, the consortia we visited selected a very small number of drivers and vehicles from each contracted school bus operator for annual review.

In evaluating driver competence, the consortia normally gave bus operators advance notice of all operational reviews, and one consortium let operators select which drivers' files were to be reviewed. Because these practices allow bus operators to prepare for their review, their performance on that day may not be typical of their usual practices. This raises doubts about the reliability of the reviews. The consortia also performed route audits to verify that bus drivers follow the planned route, stop at all assigned stops and perform their duties safely. However, they conducted these route audits infrequently, with one consortium conducting them only as a result of complaints it received. Auditing practices were also inconsistent, with one consortium's assessor riding on the bus so that the driver was aware of the audit. This consortium told us that it periodically used the GPS software on buses to verify drivers' compliance in following the established bus route and activating the vehicle's safety mechanisms (such as alternating lights and stop arms). However, the extent of this activity was not tracked.

When the operational reviews did uncover issues such as some drivers not having the required vulnerable sector screening checks, drivers' first aid training being out of date or driver abstracts (official Ontario driver performance records) missing from files, only one of the three consortia we visited regularly followed up to ensure that these were rectified. Another consortium followed up on only some issues. At the third consortium, poor documentation made it difficult to assess whether problems had been appropriately rectified by the operator.

When it came to evaluating vehicle safety, only two consortia visually inspected the condition of buses as part of the operational review, in addition to checking maintenance and inspection records. The buses selected for inspection, however, might not have been representative of the buses actually in use. This is because the sample chosen was not based on the total population of buses, but rather on the vehicles that were present at the operator's premises at the time of the review.

RECOMMENDATION 1

The transportation consortia in conjunction with school boards should:

- develop and conduct consistent and effective oversight processes for school bus operators to confirm their compliance with contract and legal requirements for driver competence and vehicle condition; and
- track the rate of bus driver turnover, along with accidents and incidents such as dropping students at the wrong stop, to help determine if there is a link between driver turnover and safety risks, and if action is needed.

TRANSPORTATION CONSORTIA RESPONSE

All three consortia were in agreement with this recommendation. The consortia stated that successful implementation would best be achieved through the Ontario Association of School Business Officials Transportation subcommittee. This would allow for input and discussion by all consortia, and enable the development of uniform processes across the province for the effective oversight of school bus operators and for tracking the relationship between bus driver turnover and accidents and incidents.

Ministry of Transportation

The Ministry of Transportation (MTO) has a number of roles in enforcing driver competence and vehicle safety. MTO issues licences to school bus drivers and is to enforce school bus operators' compliance with federal and provincial legislation and regulations for the safe operation of vehicles. It administers a safety monitoring and intervention program for commercial vehicle operators (including school bus operators) by assigning each a safety rating based on their record of traffic infractions, collisions, inspections, and the results of facility audits; and by monitoring these ratings. It undertakes facility audits at the offices of school bus operators to assess whether the operator has controls in place that ensure that:

- drivers are properly qualified and are complying with the maximum hours of driving requirements; and
- vehicles are in good condition.

To determine vehicle safety and compliance with legislation and highway safety standards, MTO conducts physical safety inspections of school buses and their drivers at various locations, including terminals where the vehicles are kept by bus operators. During facility audits at operators' offices, it checks documentation to determine whether vehicles are being properly maintained and have been formally inspected twice a year. As well, MTO investigates complaints regarding privately operated Motor Vehicle Inspection Stations, which certify school vehicles for mechanical fitness.

Effectiveness of School Bus Driver Improvement Program Not Monitored

In 2008, the Ministry of Transportation implemented a new School Bus Driver Improvement Program as a requirement of obtaining a school bus driver's licence under the *Highway Traffic Act*. However, it was up to each school bus operator or third party that was approved to provide this course to develop and deliver the course in conformity with standards set by MTO. Although required to do so, the Ministry has not monitored the delivery of the course, nor has it reviewed the effectiveness of the program to determine whether it has made an impact on safety in the industry. Since that time, our review of police at-fault collision statistics has indicated little or no improvement in bus driver performance. Consistently, for each year from 2008/09 to 2012/13, for collisions involving school vehicles, the police determined that the school bus driver was at fault in about 40% of cases. For the remaining collisions, either the bus driver was not at fault (54% of cases) or the cause of the collision could not be determined (6% of cases).

RECOMMENDATION 2

To help promote good practices and safe driving by drivers of school vehicles, the Ministry of Transportation should monitor the delivery of the School Bus Driver Improvement Program and review its effectiveness.

MINISTRY OF TRANSPORTATION RESPONSE

The Ministry is currently reviewing the auditing and oversight regime for all driver-training–related programs, including the School Bus Driver Improvement Program, and is establishing an audit framework to provide for its effective monitoring.

Improvements Needed to the Commercial Vehicle Operators' Registration (CVOR) Program

MTO's Commercial Vehicle Operators' Registration program, or CVOR, tracks the on-road performance of school buses and other buses and trucks. It assigns points for drivers' traffic violation convictions, collisions, results of vehicle inspections and audits by MTO at the operator's place of business. The points assigned are compared against distance travelled and fleet size to determine a school bus operator's safety rating. A poor rating may result in a warning letter from MTO, an audit on the operator's operations, an interview or removal of the operator's right to operate in Ontario. Our concerns with MTO's CVOR program as it affects school buses were as follows.

Safety ratings of school bus operators were not always up to date. We reviewed a number of safety violations and found that information provided by the courts (convictions) or the police (collision statistics) took a considerable time to appear in the rating. Half of the convictions took at least 83 days, and half of the collisions took at least 105 days to appear in the rating. We also found that when a traffic violation is challenged in court it is not entered into the operator's rating unless the person is convicted; sometimes it took more than 300 days from the date of the violation before it appeared in the rating. Similarly, we noted that in some cases it took about two years for an accident to appear in the rating. This is a concern, as operators' safety ratings take violations into account for only 24 months following the date they occur. Therefore, the time lag between the date the violation occurred and the date it is considered in the rating shortens the time the violation appears on the safety rating, and in turn could delay or prevent any needed intervention by MTO.

Because operators self-report the distances their buses are driven, there is a risk they can manipulate the numbers to obtain a more favourable safety rating. An operator's safety rating improves with the number of vehicles and kilometres driven. This information, however, is not verified by MTO. A 2013 consultant's study on the effectiveness of the CVOR program recommended that MTO consider implementing measures to verify the number of vehicles and kilometres travelled reported by operators.

CVOR safety ratings are of limited use to transportation consortia in helping them assess the safety record of locally contracted school bus operators. The rating consolidates safety information for all of an operator's locations and for all of its commercial vehicles of every type, including vehicles not used for transporting students. Numbers and types of violations can vary by location, as each location may be operated independently, and different types of vehicles have different levels of risk. The consortia we visited informed us that they need better safety information on the school buses in their own locations.

RECOMMENDATION 3

In order for the Commercial Vehicle Operators' Registration program (CVOR) to effectively track the on-road performance of school buses and trigger ministry intervention when school bus operators' ratings reach unacceptable levels, the Ministry of Transportation should:

- ensure that safety infractions are updated in the CVOR in a timely manner and that these are reflected in the operator's safety rating for the full 24 months from the time the infraction is input into the system;
- ensure that information in the CVOR is easy to interpret and provides safety information on local terminals of school bus operators; and
- consider ways to verify the accuracy of self-reported information on the number of vehicles in the operators' fleets and the number of kilometres driven.

MINISTRY OF TRANSPORTATION RESPONSE

The Ministry agrees with the Auditor General that the timely tracking of safety factors is an important tool for the provision of safe school vehicles.

The Ministry of Transportation's Carrier Safety Program is aligned with the National Safety Code Standards, a set of nationally agreed-upon standards covering a number of vehicle- and driver-related areas. The CVOR program is based on National Safety Code Standard 7 – Carrier Profile, which establishes the standards across Canada for convictions, collisions and Commercial Vehicle Safety Alliance inspections as the elements to be monitored and measured on a carrier's profile. This standard mandates that the "offence date" of the infraction is the date on which an infraction should be noted on the record. An offence cannot be noted on the record until there is a conviction. While the Ministry recognizes that use of the offence date can result in delays in getting the infraction on record, collisions are getting on record more quickly now that police services have access to the "e-collision" program. Please note, though, that any necessary further investigation undertaken before the collision is submitted could pose delays. Ontario will continue to raise the concern with data entry delays with its national safety partners to see if there is a willingness to review the National Safety Code Standard, including reflecting events in the CVOR rating for a full 24 months. Changing Ontario standards in isolation would result in a lack of alignment across provinces and states.

The Ministry is also currently modernizing its driver, vehicle and carrier information technology systems to streamline processes and meet demands for more efficient and accessible services. The new Registration and Licensing System of Ontario will include revisions to the layout and format of the CVOR abstract to make it easier to understand a carrier's safety performance record.

The suggestion to provide safety information by terminal is challenging, as safety ratings and facility audits are operator-based in alignment with National Safety Code Standards. Also, operators move vehicles among their terminals to meet operational needs. Commercial Vehicle Safety Alliance (or enforcement) inspections performed at local terminals are the only terminal-based information available. The Ministry of Transportation is committed to working with the Ministry of Education, School Boards and Transportation Consortia to improve information sharing in this regard.

The Ministry already verifies some self-reported information during facility audits, and is also looking at additional ways to verify the accuracy of self-reported information. For example, future revisions to our systems may enable utilizing odometer readings captured as part of the required semi-annual inspection.

Few School Bus Operator Facilities Are Audited

The Ministry of Transportation does not audit or inspect all school bus operators' facilities on a regular basis. As noted earlier, facility audits at operators' offices examine safety management controls for both driver competence and vehicle safety. They include checks of records of preventive maintenance, pre-trip inspection of buses, drivers' logs, licences and training. Facility audits may be triggered when an operator's safety rating in the CVOR (described earlier) reaches a significant level—for example, because of collisions, convictions and violations found in vehicle inspections. They can also be done when complaints are received or if an operator volunteers for an audit to improve its safety record. Because the threshold for audits is set for all commercial vehicles, few school bus operators reach the threshold for audit. Therefore, even though MTO follows its policy in regard to facility audits, the policy is of limited usefulness in helping increase the safety of school transportation. In the past five years, MTO has conducted only 24 facility audits on 19 school bus operators.

RECOMMENDATION 4

To help increase the safety of school transportation, the Ministry of Transportation should consider changing the threshold that triggers a facility audit for school bus operators.

MINISTRY OF TRANSPORTATION RESPONSE

The CVOR program is intended to take action with those operators identified at the highest risk of being or becoming unsafe. School bus operators are rarely subjected to a facility audit, as this is a very safe industry that doesn't often reach the predetermined threshold level to trigger a facility audit. However, the Ministry will do further analyses and establish an intervention protocol specific to school bus operators based on the operator's safety performance.

Improvement Needed in Inspections of School Vehicles by the Ministry of Transportation

The Ministry of Transportation conducts safety inspections on all types of commercial vehicles on a regular basis, including the approximately 19,000 school vehicles with six or more seats that are used by school bus operators to transport students. Inspections may be known in advance or may be unannounced, and are conducted by MTO inspection officers, or sometimes by police officers with special training. A sample of school buses at each location used by an operator (referred to as a terminal) is chosen for inspection. In 2014, MTO officers inspected about 2,355 school vehicles. Our concerns with MTO's inspection process for school buses were as follows:

- **Inspections not timely.** We reviewed a number of school bus inspections and noted that more than 90% were not completed within the time frames stipulated by MTO's risk-based inspection approach. The average delay was almost three months, and the longest delay almost a year and a half.
- **Lack of evidence that required repairs were made.** During an inspection, when a violation or serious infraction (that is, a violation that takes the vehicle off the road) is noted, either the bus operator fixes it on the spot and the inspector verifies the fix and signs off on it, or the inspector issues a repair verification order that requires the operator to make the repair within 14 days and submit receipts to the inspector. However, in two-thirds of our sample of inspections with violations or serious infractions, there was no documented evidence that repairs had been made or that a repair verification order was issued as required.
- **Coverage of inspections incomplete.** We noted that over the past five years, MTO conducted 14,000 inspections on only 8,500 individual school vehicles—indicating that

many of these buses had been inspected multiple times over this period, some more than five times, while many had not been inspected at all. MTO inspectors generally inspected vehicles that were at the operator's terminal at the time, rather than selecting their sample from the total number of buses in the operator's fleet at that terminal. Also, MTO's policy requires that 40% of the sample of buses to be inspected should consist of newer buses (up to five years old) and 60% should consist of higher-risk older buses (more than five years old). Our review of a sample of inspections found that over 30% of inspections included more new buses than required and fewer older ones. For example, in one case where MTO was to inspect a sample of three new and five old buses, it actually inspected eight new buses.

The Ministry of Transportation's Bus Inspection Tracking System Not Complete or Accurate

Ministry of Transportation inspectors use the Bus Inspection Tracking System (system) to select operators' terminals (locations where buses are kept) for inspections of school vehicles. However, the information in the system is not always current. The system contains information on the location of terminals, the number of school vehicles by size, vehicles' last and next inspection date, and issues found during inspections at each terminal—but there is no mechanism for operators to inform MTO when terminals shut down and new ones open, the number of buses at a terminal changes, or a bus moves to a different terminal. Information in the system is updated only if the inspector becomes aware of changes during the year or after conducting an inspection. To illustrate:

- The number of school vehicles recorded in the system was less than the number of school vehicles contracted by transportation consortia. In the 2013/14 Ministry of Education (Ministry) survey, the consortia reported to the Ministry that they had contracted about 19,000 school vehicles from operators; the system, however, lists only about 16,000. The number of school vehicles in the system should be much higher than the number contracted by consortia, because it should also include school vehicles used by private schools and other organizations.
- The system contained inaccurate information on the location of operator terminals. We requested information from a sample of operators on the number of terminals they operated and compared this information to what was in MTO's system. In nearly 50% of our sample, the information differed. Either the location of terminals was different or the terminal was not listed in the system. If the terminal was not listed in the system, it would likely not be inspected.

RECOMMENDATION 5

To increase the effectiveness of its safety inspections of school buses at operators' terminals, the Ministry of Transportation (MTO) should:

- update and maintain its Bus Inspection Tracking System with complete and accurate information on the location of operators' terminals and school vehicles at each terminal;
- have inspectors focus on school buses considered to be high risk and those that have not been inspected recently;
- complete safety inspections of school buses within the time frames stipulated by MTO's risk-based inspection approach; and
- obtain evidence that violations or infractions noted during school bus inspections are rectified in a timely manner by a school bus operator.

MINISTRY OF TRANSPORTATION RESPONSE

The Ministry is currently modernizing its driver, vehicle and carrier information technology systems to streamline processes and meet demands for more efficient and accessible services. Future revisions to the Registration and Licensing System of Ontario will enhance our ability to track and monitor the bus inspection program.

The Ministry acknowledges the Auditor General's concern and will undertake a review of its Bus Terminal Inspection protocol to ensure enforcement resources are targeting higher-risk school buses.

The Ministry of Transportation is also in discussions with the Ministry of Education, school boards and transportation consortia to determine how we can obtain more accurate information on the location of operators' terminals and school vehicles at each terminal.

The Ministry has taken steps to complete inspections that were overdue at the time of the audit. In light of the Auditor General's recommendations, the Ministry will also review its current policies and procedures and make any necessary changes to ensure they are effective and align with road safety objectives. It will also reaffirm expectations with field staff.

Limited Ministry of Transportation Oversight of Privately Operated Motor Vehicle Inspection Stations Responsible for Certifying the Safety of School Vehicles

The *Highway Traffic Act* requires school vehicles used for transporting six or more persons to have annual and semi-annual mechanical inspections at licensed privately operated Motor Vehicle Inspection Stations (MVISs). The Ministry of Transportation provides little oversight of MVISs to ensure that they conduct thorough inspections before certifying school vehicles. This oversight is especially important, since many school bus operators are licensed by MTO to have their own MVIS, which they can use to conduct the required inspections on their own fleet of vehicles. The Ministry investigates these stations only when complaints are made by the public or issues are noted by inspectors in the district offices. Over the last five years, only 12 stations where school bus operators were inspecting their own buses have been investigated. These investigations found some stations operating without a licence, and questioned the effectiveness of the mechanical inspections performed at other stations.

We also found that MTO has very little assurance that all school vehicles are undergoing the required annual and semi-annual mechanical inspections. Following an inspection, there is no requirement for the MVISs to report to MTO.

RECOMMENDATION 6

To ensure that Motor Vehicle Inspection Stations (MVISs) are conducting effective mechanical inspections, the Ministry of Transportation should:

- devise a strategy that enables it to conduct risk-based reviews of MVISs, especially those that are run by school bus operators licensed to inspect their own school vehicles; and
- require the MVIS to submit its results of annual and semi-annual inspections for tracking in situations where concerns are identified, as confirmation that its school vehicles have undergone the necessary mechanical inspection.

MINISTRY OF TRANSPORTATION RESPONSE

The Ministry agrees that improvements can be made to Ontario's MVIS program. The *Making Ontario's Roads Safer Act, 2015*, includes enabling provisions that allow for changes to the program that are expected to considerably improve program standards through automated or electronic delivery of inspection certificates and enhanced monitoring and sanctioning capacity.

As the Ministry works to define the business requirements for the transformed MVIS program, consideration will be given to effectively tracking annual and semi-annual inspections.

4.1.2 Improvements in Information Sharing Are Needed

There is no protocol for information sharing between the Ministry of Transportation, school boards, transportation consortia and the Ministry of Education, nor does the Ministry of Education receive or request reports or specific information regarding school bus safety from these other participants. Sharing such information is needed to ensure that each participant is aware of any issues uncovered by the others regarding bus operators and the safety of their operations, so that appropriate action can be taken to improve the safety of student transportation services.

Within the education sector, we found that there is good collaboration and sharing of information and best practices among the management of different consortia, mainly through a subcommittee of the Ontario Association of School Business Officials. At times school board and Ministry of Education staff also attend these meetings. Also, consortium managers often conduct their own surveys as needed and share information on various issues, such as policies on bus cancellation due to inclement weather and transportation for special programs.

RECOMMENDATION 7

The Ministry of Transportation, in conjunction with the Ministry of Education, school boards and transportation consortia, should develop a protocol to share information on the results of their inspections and audits of school bus operators and motor vehicle inspection stations, and collision information. This will help facilitate timely action to enforce the safety of school transportation services throughout the province.

MINISTRY OF TRANSPORTATION RESPONSE

The Ministry of Transportation recognizes that there are challenges to directly sharing all inspection results, audits and other events with school boards and transportation consortia, since a single bus operator may serve multiple school boards or consortia and may also have vehicles unrelated to the transportation of children. Despite these challenges, the Ministry of Transportation is committed to working with the Ministry of Education, school boards and transportation consortia to improve information-sharing in this regard.

CVOR abstracts for all commercial vehicle operators, including school bus operators, that summarize a carrier's performance over a 24-month period are available to members of the public (including school boards and consortia) on the Ministry's website. A more detailed abstract is available only to carriers and contains details of the carrier's safety performance, with a chronological record of all events entered onto the carrier's record during the past five years. The new Registration and Licensing System of Ontario will include revisions to the layout and format of CVOR abstracts to make them easier to read and understand, and make it easier to assess a carrier's safety performance record.

The Ministry of Transportation encourages school boards and transportation consortia to request copies of these abstracts as part of their transportation contracts.

4.1.3 Student Safety

Consortia Set Their Own Safety Policies for Students and Bus Drivers

All three transportation consortia we visited provide their bus operators with their policies regarding the safe transport of students. These policies varied at each consortium and included things such as picking up students on the right side of the road and not having bus stops on high-traffic roads.

With regard to student behaviour on the buses, the three consortia have policies in place that delegate the responsibility of dealing with behavioural issues to the principals of the schools they serve. They see the time students spend on a school bus as an extension of the school day. Bus drivers are to inform the principal of behavioural issues requiring the principal's attention, and it is then up to the principal to determine the appropriate course of action. In addition, only two of the consortia have a policy document, "Responsibilities of the Students," which outlines expectations of appropriate behaviour on the bus and warns that the privilege of being bused to school may be lost if a student acts in an unsafe or inappropriate manner. Only one consortium requires its schools to obtain a sign-off on this policy by the students and parents.

Safety Information and Training for Students on School Buses Varies across the Province

Each consortium decides whether or not it will offer school bus safety programs to its students, which programs it will offer and what information, if any, it will provide. The Ministry of Education has not mandated any training or information to be provided. We noted variations at the three consortia we visited, both in the information and programs offered to students and whether the programs were mandatory or voluntary. Specifically:

- Each consortium provided its own materials to schools to distribute to students on general bus safety (such as getting on and off the bus and how to behave on the bus) as well as information for parents of new riders on how to prepare them to ride the bus.
- Two consortia offered general school bus safety training for elementary students every year, although only one made it mandatory. In the consortium where it was up to individual schools to decide whether or not to take advantage of the training, only 12% of the students had taken school bus safety training.
- All three consortia offered a voluntary orientation program for new riders every year. Two of the three did not track the number of students that had taken the orientation; in the third consortium, only 30% of new riders had taken the orientation.
- School bus evacuation training conducted by the operator was mandatory every year in all three consortia. However, only one consortium received any assurance from the operator, listing schools and dates, that the training had actually taken place. The other two could not confirm to us when this training had taken place.

We noted in the responses to our survey that training offered to students and its uptake also varied in the other 30 consortia. Only 15 of the remaining 30 consortia had made general school bus safety training mandatory, and only five had mandatory orientation for new riders. Approximately half of the consortia where these training programs were voluntary tracked the uptake of the training. Uptake for general school bus safety training averaged about 60%, and orientation for new riders averaged about 45%.

Protocol for Meeting Young Students at the Bus Stop Varies across the Province

School boards and consortia have adopted a safety protocol that requires a parent or a designated adult to meet younger children at the bus stop after school. These young students have an identifier, usually on their backpack, and are to wait on the bus until their parent or other adult is located. In the consortia we visited and from a survey undertaken by the Ontario Association of School Business Officials, we found that the grades of students who must be met at the stop varied across the province, from kindergarten to Grade 3.

RECOMMENDATION 8

To improve student transportation safety, the Ministry of Education, in conjunction with school boards and transportation consortia, should:

- develop consistent safety policies for the safe transport of students and for dealing with behavioural issues on the bus;
- identify or develop mandatory training programs and standard information packages

for students on school bus safety, and ensure that this training is delivered consistently to all students across the province; and

- determine which grades should be met at the bus stop by an adult, and develop a standardized process for this across the province.

MINISTRY OF EDUCATION RESPONSE

School boards are self governing bodies and retain the right and responsibility to determine their own policies and procedures, including the development, approval and implementation of all transportation policies. The Ministry will, however, encourage and support the Ontario Association of School Business Officials Transportation subcommittee to address these issues at a provincial level.

4.1.4 Incidents and Collisions

The Ministry of Education (Ministry) funds student transportation through the school boards and summarizes the results of its annual student transportation survey from the information provided by the consortia. However, the Ministry takes a mostly hands-off approach when it comes to safety. For example, the Ministry has not set any guidelines on the reporting of collisions and incidents among the consortia to enable analysis of their causes, and to identify and compare best practices in order for this information to be used in developing strategies to prevent future collisions and incidents. The result is inconsistent tracking and analysis of collisions and incidents, and gaps in information by the consortia.

Consortia Need to Better Track and Analyze Collision Data

The three consortia we visited required their contracted bus operators to report to them on all collisions involving school vehicles. However, only two of the consortia tracked and analyzed this information to identify trends such as the cause of accidents or operators with a high number of accidents. Only one consortium used this information to improve the safety of its contracted services, such as requiring contractors to provide specific training for drivers or making changes to existing routes.

Collision reporting also varied in the remaining 30 consortia. In our survey, we asked these consortia to provide us with the number of collisions involving school vehicles within their jurisdictions for the 2012/13 and 2013/14 school years and to specify those that resulted in a student fatality or injury, or in damage to property. Only 50% were able to provide us with more fulsome information for both school years.

Incidents Involving School Vehicles Are Not Tracked and Analyzed Consistently across the Province

The tracking of incidents is not consistent among the consortia. These include such occurrences as buses breaking down, not arriving at stops on time or dropping students off at the wrong stop, or student injuries on buses and student behaviour issues such as fighting (see **Appendix**).

We asked all 33 consortia for the number of such incidents involving school vehicles for the 2012/13 and 2013/14 school years. Three consortia were unable to provide us with statistics on any incidents, and a number of others were only able to provide us with statistics on late vehicles or mechanical breakdowns, stating that other incidents were not tracked. Only four of the 33 consortia that we either surveyed or visited were able to provide us with statistics on all the categories of incidents that we requested for both school years. **Figure 7** is a summary of the incidents that were recorded and reported to us for the 2012/13 and 2013/14 school years by the three consortia we visited and the 30 we surveyed that tracked such information.

RECOMMENDATION 9

The Ministry of Education should set formal guidelines on the reporting of school vehicle collisions and incidents among the transportation consortia to enable comparison and analysis of their causes and facilitate the identification of issues and best practices of consortia for the

Figure 7: Incidents on School Vehicles Broken Down by Type, 2012/13 and 2013/14

Source of data: Survey of transportation consortia conducted by the Office of the Auditor General

	2012/13		2013/14	
Type of Incident	Number Reported*	% of Consortia that Provided Incidents Data	Number Reported*	% of Consortia that Provided Incidents Data
Student dropped off at wrong stop	44	33	43	42
Student not met by parent or guardian	294	39	2,883	61
Student lost	19	36	29	46
Bus late	27,209	59	66,771	70
Mechanical breakdown	5,141	48	6,080	70
Fights/bad behaviour	965	33	1,214	52
Other (eg., student injuries, medical emergency, boarded wrong bus, bullying)	976	30	866	45
Total	**34,648**		**77,886**	

* The number reported is for only the consortia that provided incidents information to us. Appendix 1 identifies which consortia reported that they tracked incidents, and the types of incidents they tracked.

purpose of developing strategies to mitigate these in the future.

MINISTRY OF EDUCATION RESPONSE

The Ministry agrees to work with school boards and transportation consortia to develop standardized definitions, and expand the collection of school vehicle collisions and incidents information through the annual student transportation survey.

4.2 Eligibility for Busing Varies Significantly across the Province

Figure 8: Range in Distances Between Home and School Set by Ontario School Boards for Students to be Eligible for School Transportation, 2013/2014

Source of data: Ministry of Education, Student Transportation Survey for 2013/14

	Distance (km)		
Grade	Minimum	Maximum	Median
JK	0	1.6	0.8
SK	0	1.6	0.8
1	0.8	1.6	1.2
2	0.8	2.4	1.2
3	0.8	2.4	1.2
4	1.0	2.4	1.6
5	1.0	2.4	1.6
6	1.0	3.2	1.6
7	1.0	3.2	1.6
8	1.0	3.5	1.6
9–12	1.6	4.8	3.2

Each school board can make its own decisions about the transportation services it will provide and about which students are eligible for busing. This leads to significant differences in the level of transportation services provided and creates unequal access for students. Across the province, about 40% of students use school transportation. However, among school boards the percentage varies significantly, from 10% to 87%. While a significant portion of this disparity may be due to differences in geography, student population density and the availability of public transit, differing eligibility criteria for busing among boards also contribute to this variation.

Figure 8 shows that eligibility criteria, based on home to school walking distances, vary significantly by grade in school boards across the province. We noted that eligibility criteria for busing varied among consortia, among school boards in the same consortium and sometimes among schools within the same school board. To illustrate, in the 2013/14 school year, 30% of consortia had school boards with different eligibility criteria, and 13% of school boards had schools with different eligibility criteria. In addition, we noted that three school boards in the province did not provide any bus transportation to their secondary students (Grades 9 to 12), except for students with special needs. Included in this group was one of the school boards we visited, which told us its policy was due to a lack of funding.

We were also informed by the boards we visited that public and Catholic boards serving the same area tend to compete for students in order to increase the per pupil funding they receive from the Ministry of Education, and busing is one of the means that the boards use to attract students.

We researched other jurisdictions in Canada and found that four provinces had standardized their eligibility criteria. Manitoba sets the walking distance for eligibility at 1.6 kilometres, Alberta and New Brunswick set it at 2.4 kilometres, and Nova Scotia sets it at 3.6 kilometres for students in all grades.

RECOMMENDATION 10

The Ministry of Education, in conjunction with school boards, should set standards on eligibility for transportation services, especially home to school walking distances for students, to promote greater consistency in transportation services across school boards within the province.

MINISTRY OF EDUCATION RESPONSE

The Ministry will explore the impacts of this recommendation on funding at a provincial level and take the recommendation into consideration accordingly.

4.3 Funding Formula Needs Updating

4.3.1 Funding for Transportation Services Is Not Based on Need

Funding for school transportation in each board is not based on need, such as how dispersed students and schools are, and the number of students with special needs. Instead, it is based on a historical amount—each board's 1997 spending level with some annual adjustments for enrolment and inflation, and other minor adjustments (such as for fuel costs and safety initiatives). Generally, a school board is informed of its funding and then sets priorities and makes decisions about transportation service to be provided accordingly. We noted the following concerns with respect to the province's current method of funding school transportation services:

- Transportation grants to school boards do not have to be spent on transportation. There are no minimum eligibility or service requirements designed to provide a basic or core level of service, and boards can determine which services they want to provide and spend their funding on. We found that school boards were spending close to, or even more than, the grant received on transportation services, but making choices that have resulted in significant differences in service levels across the province. For example, at one consortium we visited, we noted that a school board had recently decreased its walking distance for service eligibility for specific grades because it had excess funding. At another consortium, one school board began offering transportation services to its French Immersion students when it had a surplus of funds, while another board within the same consortium did not provide these services.
- There is a risk that the Ministry is funding deficits for transportation services resulting from some boards' overly generous eligibility policies. Since 2006, the Ministry has

contracted with a consulting firm to conduct effectiveness and efficiency reviews of school transportation services. Depending on a consortium's overall rating (high, moderate-high, moderate, moderate-low, low), the Ministry would fund all, part or none of the transportation services deficit of a board within the consortium. Specifically, if the overall rating for a consortium is "moderate" or above, the Ministry will cover 60–100% of any shortfall in funding. Below a "moderate" rating the Ministry will not cover any of the shortfall. At the time of our audit, 25 of the 33 consortia had a rating of "moderate" or above. Deficits totalling over $40 million have been funded since the reviews were initiated. Without province-wide ministry guidelines on student eligibility, the deficit funded by the Ministry could be the result of a board's overly generous eligibility policies—which the review does not consider.

- Not all factors that significantly influence a school board's transportation costs are reflected in the Ministry's funding formula. Although some of the adjustments to the funding model over the years have been due to decreases in enrolment, this is not the primary factor influencing a board's transportation costs or needs. We were informed by the consortia we visited that decreasing enrolment can actually increase transportation costs, because if a school closes, students must be transported further to attend the next closest school. More important influences on transportation needs that are not taken into account in the Ministry's current funding formula are local factors such as enrolment density, geography, the availability of public transit, the number of students with special needs, and hazards such as busy streets or highways.
- Over the last 10 years, the Ministry of Education has provided targeted funding for specific initiatives such as safety programs and wage enhancements for school bus drivers, but has not verified that the funds were spent for the intended purpose. The Ministry told us that it communicated its expectation to school boards on how these funds were to be used, but it does not have any reporting mechanisms with school boards to verify that the funds were actually spent as intended.

In 2009, the Ministry began testing a new funding formula based on need that would have resulted in some boards receiving less and others more. However, due to significant pushback, especially from the boards that expected to get less, the Ministry abandoned the new funding model and continued with the status quo.

4.3.2 Savings from Forming Consortia Have Not Been Measured

School boards formed consortia to deliver transportation services as part of the reforms the Ministry introduced in the 2006/07 school year. Although these reforms were aimed at achieving cost efficiencies and savings, the Ministry did not set any benchmarks with regard to the efficiencies or savings school boards should achieve. It has not undertaken an analysis since the consortia began operating. Only one of the three consortia we visited had tracked whether there was a change in the number of buses its boards use, and in this case there was a decrease. None of the consortia we visited had information on its boards' transportation costs before the consortium's formation to determine whether any savings were achieved. However, from 2006/07 to 2015/16, both the funding provided and school board expenditures on transportation have increased by about 8% after being adjusted for inflation, while the number of students transported has remained stable.

RECOMMENDATION 11

After implementing standardized eligibility criteria, we recommend that the Ministry of Education (Ministry) should:

- revisit its current funding formula. The formula needs to reflect school boards' local transportation needs based on the number of eligible riders and consortia utilization of buses, and taking into consideration factors such as geography, availability of public transit and the number of students needing transportation services (due to distance, special needs, special programs or road hazards); and
- implemen[illegible] updated funding formula ensuring that any targeted funding for specific initiatives is spent for the purposes intended.

MINISTRY OF EDUCATION RESPONSE

The Ministry will continue to examine the current funding formula in relation to the changing local transportation needs of school boards. The Ministry has been implementing student transportation reforms (for example, creation of consortia, and effectiveness and efficiency reviews) to increase the efficiency and effectiveness of transportation service delivery. Through the effectiveness and efficiency reviews, appropriate adjustments have been made to transportation funding.

4.4 Opportunities Exist for Efficiency Gains

Based on the results of the Ministry of Education's 2013/14 student transportation survey, the average cost to transport a student without special needs was $740, with a range between boards of $365 to $1,680. The average cost to transport a special needs student was $4,650, with a range between boards of $1,045 to $11,205. A significant portion of this disparity could be due to differences in geography, student population density and other local factors or differences in eligibility criteria. However, the Ministry has not followed up with the boards to determine if such significant variances in costs per student are due to these reasons or to inefficiencies in providing transportation services.

There are several initiatives that consortia could undertake to further maximize the occupancy on vehicle runs in order to reduce costs. These include collecting and using accurate student information and information on actual ridership to plan services; fully utilizing route planning software; staggering bell times; sharing routes between boards; and instituting common days off between boards. Our audit noted that these initiatives have been implemented to varying degrees in the consortia that we visited, but more opportunities may exist. The following subsections discuss this in greater detail.

4.4.1 The Right Information Is Not Always Used in Planning Student Transportation Services

Consortia usually determine the number of buses needed using the number of students who are eligible for transportation rather than the actual number of students riding the buses. Many students may be eligible for busing but for one reason or another may not be using the service on a regular basis. For example, at one consortium where the drivers performed a head count of riders for three consecutive days, only about 70% of the students that it had planned would use school transportation were actually using the service. Often, parents of eligible students do not inform the consortia that they do not need school transportation, either because they do not know they should notify the consortia or because they want to keep a place open in case they need it periodically.

Two of the three consortia we visited did not have good procedures to identify the actual number of eligible students who were riding the buses. However, the third consortium undertook a rigorous process over the summer months to identify which eligible students required transportation services. This consortium used radio ads, pamphlets and robocalls to inform parents that they needed to notify the consortium by late summer whether they planned to use school bus services. In cases where the parents failed to contact the consortium and the consortium was unable to contact the parents, the child would be removed from the bus service for the first two weeks of school, and then indefinitely. This consortium was able to confirm with the majority of its eligible students whether or not they needed the service, and it planned the busing accordingly. It also required students to use the bus a minimum two days per week. We found that about 90% of the students whom this consortium had made arrangements to transport were actually using the service.

Also, all three consortia we visited were to varying degrees not utilizing the most up-to-date information on students (such as students changing addresses, changing schools or leaving the board) when arranging busing services. For example, when one consortium compared its information on students twice during the year to information the boards had, it found that about 400 students for whom it had arranged busing in the 2014/15 school year did not need the service because they had moved, changed schools or left the board completely.

4.4.2 Route Planning Software Is Not Consistently Used by Consortia

According to the survey we conducted, 40% of the consortia were not using the route optimization function in the route planning software. The route optimization function can serve as a useful starting point in mapping the most efficient routes, even though the suggested routes may have to be manually adjusted based on knowledge of the local area (for example, construction or traffic volume).

At the consortia we visited, we found that the route optimization function in the software was not being used for special needs students. One of the three consortia we visited used the function annually to assist in optimizing all of its routes for non–special needs students, and one used it for only some routes. The third consortium did not use the function for route planning purposes, but used it every four years to determine cost sharing between boards. For the most part, this consortium carried forward its routes from year to year until it became aware of problems (such as overcrowding on buses and unneeded stops) from either the driver or the school.

4.4.3 More Sharing of Buses Is Required

Boards within some consortia are sharing buses but improvement is needed. In our 2000 audit of pupil transportation grants we recommended that school boards serving the same area integrate their transportation services. We noted that, although buses are being shared to a certain extent, students from different boards seldom ride together on the same bus. Based on the ministry survey results for 2013/14, 36% of consortia reported that their boards were sharing buses for at least half of the routes. However, only 18% of consortia indicated that students from different boards rode together on the bus for at least half the trips the buses made.

We also noted that the French boards operating in the same area were not part of two of the three consortia we visited. The third consortium served all the boards in its area. A recent study commissioned by the Ministry indicated that $1.7 million could be saved annually by having a French board join an existing consortium.

4.4.4 School Start and End Times Are Not Always Staggered

School start and end times are not always staggered to let buses make more than one trip in both mornings and afternoons. By staggering school start and end times, consortia can reduce the number of buses needed. One consortium we visited increased the efficiency of its service by deciding the start times for schools in its area, while another regularly suggested start and end times that were normally accepted by the schools. However, in the area served by the third consortium, the school boards decided their start and end times; nearly 70% of the schools' start times and almost 60% of the end times were bunched within 30 minutes, significantly limiting the consortium's ability to have the same buses make multiple trips.

4.4.5 School Boards Are Not Fully Co-ordinating Common Days Off

A fairly simple way to reduce the need for school transportation is for boards within a consortium to co-ordinate professional activity days and school holidays, and to also have common school year start and end dates. In response to our survey, 40% of the consortia indicated that boards within their area had common days off at the elementary and secondary school level. Similarly, the school boards within two of the consortia we visited were not co-ordinating all their days off for elementary schools and secondary schools, while the third consortium had fully co-ordinated days off. For the consortia where the days off were not coordinated, one consortia estimated savings of $525,000 for three days that were not co-ordinated between its school boards, while the other could not estimate the savings. We estimated the savings could be up to $370,000 per day, which represents the consortia's daily operating costs for student transportation.

4.4.6 Bus Utilization Rates Are Not Being Captured

Both the seating capacity and the utilization rate (number of students riding as a percentage of seating capacity) of buses are determined differently by consortia, as there is no provincial standard for either one. Although the Ministry does not collect information on the utilization rates of buses across the province, we requested this information as part of our survey and noted that the rates reported by consortia ranged from 50% to 230%.

These statistics are not reliable, primarily for three reasons. First, as noted earlier, consortia generally did not have very good information on the actual number of students riding their buses. Second, seating capacity depends on the age and size of students who will be on the bus. Because each consortium sets its own capacity, we noted variations at the consortia visited (for example, one consortium assigned a maximum of 46 secondary students to a large bus while another assigned 55). And third, consortia used different methods to calculate the utilization rate, comparing either the average number of students transported for each trip or the total number of students transported for all trips to the seating capacity.

The lack of any provincial guidelines or reporting of bus utilization rates makes it difficult to compare consortia across the province, in order to see where improvements are needed and to link utilization to the funding for student transportation.

4.4.7 Consortia Are Contracting for More School Bus Service Than Actually Needed

The consortia we visited negotiated different payment structures in their bus contracts. One consortium's payment structure was based on the amount of time buses were used; the other two based theirs on a combination of time and kilometres travelled.

We reviewed the actual use of the buses at the three consortia and found that although one had negotiated a base rate strictly based on time (three hours a day), all of its large buses, which comprised about a quarter of the consortium's fleet, were being used for less than the contracted hours. In fact, it used about two-thirds of its larger buses for two hours or less each day. Similarly, another consortium was contracting buses based on time and distance travelled, and one-third of its buses were significantly underutilized based on the contracted hours. If these consortia contracted fewer buses and used them on additional runs they could save money.

RECOMMENDATION 12

In order to increase the efficiency of school transportation services and in turn decrease costs, transportation consortia should:

- track and monitor utilization by using the most relevant and accurate information available in planning student transportation services, including actual ridership;
- evaluate the benefits of parents of students who are eligible to use school board–provided transportation services being required to opt in or out of using transportation services;
- use route optimization software where feasible as a starting point in mapping the most efficient routes to transport students;
- increase sharing of school buses among boards and transporting students from different boards on the same bus;
- stagger school start and end times where possible to reduce the number of buses needed, by allowing them to be used on more than one run;
- reduce the need for transportation services by co-ordinating common days off; and
- only contract for services that are required.

TRANSPORTATION CONSORTIA RESPONSE

All three consortia were in agreement with this recommendation. The consortia stated that successful implementation would best be achieved through the Ontario Association of School Business Officials Transportation subcommittee. This would allow for input and discussion by all consortia to identify best practices in delivering transportation services more efficiently (such as, increased sharing of school buses between boards and students from different boards, co-ordinating common days off, utilizing route optimization software more fully, staggering school start and end times, contracting only for services needed based on actual ridership) and enable the development of uniform processes and practices across the province.

RECOMMENDATION 13

The Ministry of Education should set standards for the optimal utilization of school vehicles for school boards and transportation consortia, and provide guidance to them in calculating utilization rates.

MINISTRY OF EDUCATION RESPONSE

The Ministry will encourage and support the Ontario Association of School Business Officials Transportation subcommittee to address this issue at a provincial level, taking into consideration that the utilization of school vehicles and determination of an acceptable range of utilization rates must recognize the diversity of school boards across the province.

4.4.8 Better Co-ordination and Integration of Student Transportation Services Needed

From our audit work, we noted that the ability of a consortium to efficiently and effectively manage transportation services depends on the level of authority delegated to it by the school boards it serves, and the willingness of school boards to work co-operatively and integrate services and policies to serve the common interests of all the boards in the consortium (such as harmonizing eligibility criteria, sharing bus routes and having common days off)— as opposed to the particular interests of the individual boards. Specifically, consortia with the authority to establish eligibility criteria and employ efficiency measures uniformly across their entire service area were more likely to employ best practices to their fullest potential.

The Ministry of Education has also recognized this, and in its effectiveness and efficiency reviews provides higher ratings to a consortium that has, for example, a well-defined governance and organizational structure with clear roles and responsibilities, and an oversight committee that focuses only on high-level decisions. This structure helps ensure that a consortium's mandate remains consistent despite changes in board members and trustees. The Ministry does not specify a governance and organizational structure. However, the consortia that receive high ratings in their effectiveness and efficiency reviews are normally incorporated as separate legal entities (although three unincorporated consortia have also received a high overall rating).

Two of the consortia we visited each operated as a cohesive unit that made decisions for the good of the consortium and all the boards it serves, while the third consortium generally operated in a manner that looked at the best interests of each board individually. A 2011 effectiveness and efficiency review commissioned by the Ministry stated that the member boards of this third consortium continued to maintain involvement in student transportation services to the extent that each board still set its own transportation policies and managed parents' and principals' requests for exceptions to policies. We noted that these practices still existed at the time of our audit. Furthermore, eligibility criteria were not harmonized between the boards it served and many inefficient practices previously noted in this section were present to a greater degree. The review went on to note that for the governance committee to play a meaningful role in the oversight of the consortium, it needed to have an appropriate delegation of authority from member boards, and that the boards and consortium should further define their roles and delegated authority.

RECOMMENDATION 14

The Ministry of Education should clarify the roles and responsibilities of school boards and consortia in setting eligibility and employing efficiency measures.

MINISTRY OF EDUCATION RESPONSE

The Ministry has actively reinforced and encouraged best business practices since 2006 through the effectiveness and efficiency reviews. School boards are self-governing bodies and are responsible for making their own decisions.

4.5 Procurement of Student Transportation Services Needs Improvement

4.5.1 Only Half of Consortia Acquired Student Transportation Services through a Competitive Procurement Process

The *Broader Public Sector* (BPS) *Accountability Act, 2010* and its related directive require all broader public sector organizations receiving $10 million or more in government funding to use competitive procurement for contracts greater than $100,000. Given the level of funding they receive for student transportation, all school boards are subject to this requirement. The effectiveness and efficiency reviews commissioned by the Ministry of Education also previously identified the need for all school boards to transition to a competitive procurement process for transportation services.

In April 2011 the government issued the BPS procurement directive, which required broader public sector entities to acquire publicly funded goods and services through a competitive process that is fair, open and transparent. At the time the directive was issued, about 30% of consortia were competitively procuring their school bus transportation services, while about 70% were acquiring these services by negotiating prices with their existing bus operators. Many of the operators that were negotiating prices were strongly opposed to participating in a competitive procurement process, and in response the government gave school boards a six-month voluntary exemption (until December 31, 2011) from competitive procurement for transportation services. At the same time, the Ministry of Education launched a task force (composed of representatives from the Ministry, school boards, transportation consortia and bus associations, as well as a procurement adviser) whose mandate was to review processes used to procure student transportation, paying specific attention to their openness, fairness, accountability and value for money. The task force did not deliver on its mandate, and in March 2012 the Ministry instructed all school boards to move forward with competitive procurement. Several operators, concerned with the impact that competitive procurement would have on their business, decided to take the school boards and the Ministry to court. At the time of our audit, these court challenges were still pending. By 2013/14 only about 50% of the transportation consortia in the province had competitively procured the transportation services they were using at that time.

In October 2014, the Education Minister announced an independent review to explore options other than requests for proposals (RFPs) for competitive procurement of student transportation services that would still be in compliance with the BPS procurement directive. At the time of our audit, the review had been completed but a report had not yet been finalized and issued.

4.5.2 Evaluation of Contractors Is Not Consistent among Consortia

Two of the three consortia we visited followed a competitive procurement process in 2009 and 2013, respectively, for acquiring current student transportation services from school bus operators. The third consortium last selected its operators competitively in 2006, and since August 2014 has been granting them one-year extensions while awaiting the outcome of the cases before the courts.

We reviewed the latest RFP issued by each of the three consortia to acquire transportation services, and noted that two of the three consortia weighted qualitative criteria (several of which pertain to safety) at 65% and criteria related to price at 35%. One of these two consortia required a minimum score on quality to move on to the pricing stage. This weighting of quality against price is in line with information we received from the Ministry of Government and Consumer Services, Supply Chain Ontario, which informed us that the split between quality and price scoring for the acquisition of services is generally about 60%–70% for the quality component and 30%–40% for pricing.

The third consortium reviewed qualitative factors, but based the selection of its bus operators on price alone, allowing all bidders who submitted complete proposals to progress to the price comparison stage irrespective of their qualitative scores. We noted that two bidders with the lowest qualitative scores, who were providing services to the consortium at the time of the competition, were awarded new contracts even though two other bidders had considerably higher qualitative scores.

The qualitative criteria used to evaluate proposals differed in all three RFPs. For example, in the area of student safety programs, one consortium allocated points for having general safety programs in place; another allocated points for having evacuation training programs; while the third did not allocate any points for student safety. We grouped like criteria based on the key factors for transporting students safely and identified the weightings assigned by each of the consortia, as shown in **Figure 9**. We would have expected all three consortia to allocate high marks to the criteria related to safety—such as driver training, the operators' CVOR and accident history, fleet maintenance and management, and student safety programs offered. However, the weighting of these criteria varied significantly among the three consortia that we visited, ranging from a high of 65% to a low of 26% of the total qualitative score.

In December 2008, the Ministry of Education released a resource package including procurement guidelines, an RFP template for the procurement of bus operators and a contract template, but made its use by the boards optional. The RFP template suggested criteria for evaluating the operators on the quality of their services. Many of these qualitative criteria spoke to safety, and the template also included suggested weightings for the criteria. However, the template did not indicate what portion of the score should be assigned to quality as opposed to price, nor did it recommend a minimum score for qualitative criteria that successful competitors had to attain.

Figure 9: Weighting of the Qualitative Criteria (Safety and Other) Used to Evaluate School Bus Operator Proposals

Source of data: Consortium Request for proposals submissions

	% Assigned for Qualitative Criteria		
	Consortium 1	**Consortium 2**	**Consortium 3**
Driver education, safety and retention	5	25	20
Accident and CVOR history	5	15	5
Fleet maintenance and management	11	10	30
Student safety programs	5	0	10
Subtotal 1—Safety	**26**	**50**	**65**
Administration	21	45	30
Other	53	5	5
Subtotal 2—Other	**74**	**50**	**35**
Total	**100**	**100**	**100**

RECOMMENDATION 15

The Ministry of Education, in conjunction with the school boards and transportation consortia, should develop standard criteria for evaluating the submissions of school bus operators in procuring student transportation services. The criteria should appropriately consider the operators' ability to safely transport students.

MINISTRY OF EDUCATION RESPONSE

Student safety is our priority. The Ministry agrees to support school boards and consortia in reviewing this recommendation.

Appendix—Types of Incidents Tracked by Transportation Consortia, 2012/13 and 2013/14

Source of data: Survey of transportation consortia conducted by the Office of the Auditor General except where otherwise indicated

		Student Dropped Off at Wrong Stop		Student Not Met by Parent		Student Lost		Bus Late		Mechanical Breakdown		Fights/Bad Behaviour		Other (e.g., Student Injuries, Med. Emergency, Boarded Wrong Bus, Bullying)	
	Consortium	2012/13	2013/14	2012/13	2013/14	2012/13	2013/14	2012/13	2013/14	2012/13	2013/14	2012/13	2013/14	2012/13	2013/14
1	Algoma & Huron-Superior Transportation Services										√				
2	Chatham-Kent Lambton Administrative School Services											√	√	√	√
3	Consortium de transport scolaire de l'Est														
4	Consortium de transport scolaire d'Ottawa					√	√	√	√	√	√	√	√	√	√
5	Durham Student Transportation Services		√		√		√		√		√		√		
6	East of Thunder Bay Transportation Consortium		√		√		√		√		√		√		
7	Halton Student Transportation Services	√	√	√	√	√	√	√	√	√	√	√	√	√	√
8	Hamilton-Wentworth Student Transportation Services		√		√								√		√
9	Huron-Perth Student Transportation Services	√	√			√	√								√
10	Niagara Student Transportation Services	√	√	√	√	√	√	√	√	√	√	√	√	√	√
11	Nipissing-Parry Sound Student Transportation Services	√	√	√	√	√	√	√	√	√	√	√	√	√	√
12	North East Tri-Board Student Transportation														
13	Northwestern Ontario Student Services Consortium	√	√	√	√	√	√	√	√	√	√	√	√	√	√
14	Ottawa Student Transportation Authority														
15	Rainy River District Transportation Services	√	√	√	√	√	√	√	√	√	√	√	√		
16	Renfrew County Joint Transportation Consortium			√	√										

	Consortium	Student Dropped Off at Wrong Stop		Student Not Met by Parent		Student Lost		Bus Late		Mechanical Breakdown		Fights/Bad Behaviour		Other (e.g., Student Injuries, Med. Emergency, Boarded Wrong Bus, Bullying)	
		2012/13	2013/14	2012/13	2013/14	2012/13	2013/14	2012/13	2013/14	2012/13	2013/14	2012/13	2013/14	2012/13	2013/14
17	Service de transport Francobus							√	√	√	√				
18	Simcoe County Student Transportation Consortium				√	√	√	√	√					√	√
19	Southwestern Ontario Student Transportation Services			√	√										
20	Student Transportation of Eastern Ontario				√						√		√		√
21	Student Transportation of Peel Region*							√	√	√	√				
22	Student Transportation Service Consortium of Grey Bruce								√		√		√		√
23	Student Transportation Services of Brant Haldimand Norfolk							√	√						
24	Student Transportation Services of Central Ontario	√	√	√	√	√	√	√	√	√	√	√	√		
25	Student Transportation Services of Thunder Bay	√	√	√	√			√	√	√	√				
26	Student Transportation Services of Waterloo Region Inc.		√		√				√		√		√		√
27	Student Transportation Services of York Region	√	√	√	√	√	√	√	√	√	√				
28	Sudbury Student Services Consortium*			√	√	√	√	√	√	√	√			√	√
29	Toronto Transportation Group*				√		√	√	√	√	√				
30	Tri-Board Student Transportation Services							√	√		√				
31	Trillium Lakelands District School Board							√	√	√	√	√	√	√	√
32	Wellington-Dufferin Student Transportation Services			√	√	√	√	√	√	√	√	√	√		
33	Windsor-Essex Student Transportation Services	√	√	√	√			√	√	√	√	√	√	√	√
Total # of consortia reporting they tracked the incident type		**10**	**14**	**13**	**20**	**12**	**15**	**19**	**23**	**16**	**23**	**11**	**17**	**10**	**15**
% of total consortia		**30**	**42**	**39**	**61**	**36**	**45**	**58**	**70**	**48**	**70**	**33**	**52**	**30**	**45**

* Data obtained from visits to the consortium.

Chapter 3

Section

3.14 University Intellectual Property

1.0 Background

1.1 Definition and Importance of Intellectual Property

Intellectual property refers to creations of the mind such as inventions, literary and artistic works, designs, and symbols, names and images used in commerce. In this audit, we focus on inventions and scientific discoveries made at universities through research activities – for example, new technologies, or new or improved manufacturing processes. If commercialized, such discoveries could have the potential to spur economic growth and enhance Ontarians' quality of life. Commercialization refers to the process of taking a discovery or invention to the market.

1.2 Ontario's Research and Commercialization Ecosystem

Research in Ontario is conducted by universities and other organizations, including not-for-profit research institutions and research hospitals. These organizations conduct research alone, in collaboration with other organizations, or in partnership with industry under a contractual arrangement. Funding for research is generally provided to universities through government grants, corporate and individual contributions, and internal funds of the university, such as endowments and investment income. Only a small amount of research activity results in an invention or discovery. Once a discovery is made, the university can start a process to protect the intellectual property and get it into the hands of private companies, who are generally the ones that commercialize an invention, or bring it to market.

1.3 Provincial Government

1.3.1 Ontario's Innovation Agenda

In 2008, the province released Ontario's Innovation Agenda to focus attention on research and innovation as priorities and key factors in economic development. The agenda identified the Ministry of Research and Innovation as the lead responsible for ensuring that the province's efforts to strengthen its innovation culture are co-ordinated and comprehensive. The goal was to create "a high and sustainable level of prosperity, and healthy communities, that provide high-quality jobs and better lives for people in Ontario." The agenda highlighted five key objectives, the first of which was to "extract more value from all provincial investments in research and innovation."

According to the agenda, research in post-secondary institutions, particularly at the post graduate level, is central to creating knowledge. However, it noted that industry is often unaware of the intellectual property generated within Ontario research institutions.

1.3.2 Ministry of Research and Innovation

The Ministry's mandate is to support productivity and innovation in Ontario's research, business and entrepreneurship ecosystems, toward building sustainable economic and social prosperity. In 2014/15, the Ministry of Research and Innovation provided $276 million in research grants to post secondary institutions, research hospitals and not-for-profit research institutions, of which Ontario universities received 48%. The remainder went to not-for-profit research institutions (39%), research hospitals (12%), and colleges (1%). The Ministry provided an additional $119 million for commercialization activities (such as, networking events to connect companies with research institutions, access to funding for further development of early stage technology, and accelerators and incubators that provide space, mentoring and advisory services to start-up companies). In addition, corporate income tax credits—offered to businesses to invest in research and innovation in universities, other research institutions and the private sector—cost the province $193 million in refundable tax credits in 2014/15 and an estimated $170 million in forgone corporate income tax revenue in 2014. **Appendix 1** lists the Ministry's key programs that support research activity in Ontario and facilitate the commercialization of discoveries and inventions made in the province.

There are three main research grant programs for universities. *The Research Excellence program* funds direct and indirect operating costs of research that is intended to be transformational and globally significant. *The Research Infrastructure program* funds state-of-the-art equipment and facilities needed to conduct research. *The Early Researcher Awards program* is intended to help recently appointed Ontario researchers build research teams; its goal is to attract and retain the best and brightest research talent who will train the next generation of researchers and innovators.

The Ministry's commercialization programs are intended to provide services, such as access to capital, business acceleration services, mentoring, training and networking to innovative companies, entrepreneurs and researchers. The Ministry does not provide funding directly to universities to commercialize intellectual property. Instead, funding is provided to a network of organizations called the Ontario Network of Entrepreneurs (ONE). ONE includes the Ontario Centres of Excellence, MaRS, Regional Innovation Centres and Sector Innovation Centres. These organizations in turn fund and/or provide services to universities, colleges and other research institutions, as well as start-ups, entrepreneurs and companies. Since 2013, the Ministry refers to key commercialization activities collectively as the ONE program.

The Ontario Centres of Excellence (OCE) was formally established in 1987 as seven independent centres focusing on commercialization of intellectual property. These centres were amalgamated into one independent not-for-profit organization in 2004 to create productive working partnerships between university and college research departments, research hospitals and Ontario industry, in order to help quality research be utilized to its full potential by industry. It is intended to focus on areas and projects that align with the Ontario's Innovation Agenda and help commercialize research with the greatest potential for economic benefits and/or positive social impact. Aside from the Ministry of Research and Innovation, the OCE is also funded by the Ministry of Government and Consumer Services, federal government agencies and contributions from industry. In 2014/15, the OCE received $49 million from the Ministry of Research and Innovation to deliver initiatives, including the Industry-Academic Collaboration program, and the Campus-Linked Accelerator program.

MaRS is an independent registered charity which opened in 2005. MaRS works with a network of private and public sector partners to help entrepreneurs launch and grow innovative companies such as start-up ventures. In 2014/15 MaRS received $17.3 million from the Ministry to deliver initiatives such as the Business Acceleration Program, which supports the growth and development of regional innovation ecosystems across Ontario. MaRS also provides funding to 17 Regional Innovation Centres across the province to provide services such as business mentorship and investor readiness. MaRS also offers programs to college and university student entrepreneurs.

1.4 University Research Environment

Ontario has 21 publicly funded universities, one of which is entirely federally funded (the Royal Military College of Canada). The general purpose of university research is to create knowledge and discoveries that promote university outcomes, develop solutions to address societal challenges, and play a key role in the education experience for both professors and students. Where research results in intellectual property with potential commercial value, universities need to be effective in their commercialization activities and in protecting their intellectual property. Each university has a vice-president of research responsible for managing and co-ordinating the university's research and commercialization activities.

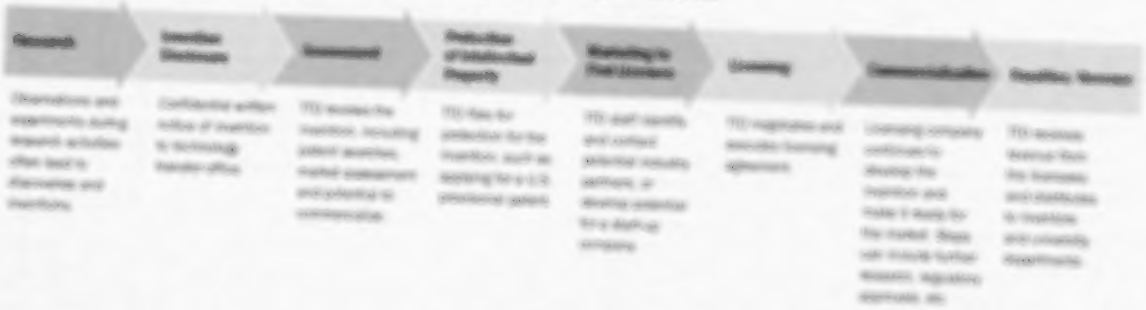
The vice-president of research typically oversees three offices – the research office, the research ethics board, and the technology transfer office. The research office is responsible for facilitating and supporting research activities; the research ethics board sets standards for ethical conduct in every aspect of research and is responsible for ensuring they are maintained; and the technology transfer office helps researchers transfer their discoveries to the marketplace through various activities, such as securing intellectual property protection, evaluating intellectual property for commercial potential, and acting as an agent representing the interests of both the institution and the inventor. Some smaller universities that lack a technology transfer office may use services provided by external technology transfer organizations instead.

Typically, inventors are academics or graduate students who specialize in particular areas of study and lack the time and/or business acumen to take an idea to market. Technology transfer offices are to fill this gap by sharing their expertise and industry connections with inventors, increasing the likelihood that a technology or invention will come to the attention of those most capable of bringing it to market—that is, the industry—and will benefit society. In exchange for this assistance, inventors often agree to give up some or all of their rights to ownership and/or future profits to the university in accordance with the university's policies.

Figure 1 summarizes the typical process of bringing an invention to market (a.k.a. commercialization).

Figure 1: Taking an Invention to Market Through a University's Technology Transfer Office (TTO)

Source of data: Modified from the Stanford University Office of Technology Licensing, Inventors Guide



Appendix 2 shows the typical governance structure of a university, with an emphasis on research activity, highlighting the key reporting relationships, roles and responsibilities. **Appendix 3** outlines the mandate for overall research activity and for the technology transfer office at each of the universities we visited.

1.5 Sources of Funding for University Research

Universities receive substantial amounts of funding for research. For their five fiscal years ending in 2014, Ontario universities received $13 billion in sponsored research funding. As shown in **Figure 2**, the primary funding sources were the federal government (48%), grants or contracted funds from non-government sources (26%), the Ontario government (15%) and other sources (11%).

1.5.1 Federal Funding for University Research

Federally, most university research funding comes from the Tri-Council Agencies, which comprise the Canadian Institutes for Health Research, the National Science and Engineering Research Council, and the Social Sciences and Humanities Research Council. Other significant funders are the Canada Foundation for Innovation and Canada Excellence Research Chairs. In 2013/14, these agencies combined, provided Ontario universities with 80% of total federal funding for research. Some of this funding is intended to help commercialize intellectual property by accelerating the development of promising technology (e.g., covering the costs of building prototypes) or covering the costs of technology transfer activities (e.g., patents, market studies, and networking costs).

Appendix 4 describes the main federal research funding agencies and their contributions to Ontario universities for the fiscal year ending 2014 for universities, the most recent fiscal year for which information is available.

1.5.2 Provincial Funding for University Research

In the fiscal year ending 2014 for universities, 15 provincial ministries provided universities with research funding, according to the Council of Ontario Universities. The largest funding providers were the ministries of Research and Innovation; Health and Long-term Care; Training, Colleges and Universities; and Agriculture, Food and Rural Affairs. **Appendix 5** details provincial research funding to Ontario universities for the five fiscal years ending 2014, the most recent information available.

Figure 2: University Research Funding in Ontario by Source

Source of data: Council of Ontario Universities' annual Financial Report of Ontario Universities, 2009/10–2013/14

	2009/10	2010/11	2011/12	2012/13	2013/14	5-year Total	
Funding Source	($ million)	($ million)	($ million)	($ million)	($ million)	($ million)	(%)
Federal government[1]	1,201	1,213	1,225	1,328	1,318	6,284	48
Ontario government[2]	362	375	389	480	343	1,949	15
Non-government	598	716	818	787	793	3,427	26
Other income (e.g., donations, investment income, etc.)	383	167	199	221	232	1,382	11
Total	**2,544**	**2,471**	**2,629**	**2,776**	**2,686**	[illegible]	**100**

1. See Appendix 4 for federal research funding programs, 2013/14.
2. See Appendix 5 for provincial funding for university research by ministry and agency, 2009/10–2013/14.

Please note: "Fiscal year" denotes that of the university which runs from May 1 to April 30.

1.3.3 University Endowment Funding for University Research

Universities typically have endowment funds. These are restricted to the purposes agreed upon by the university and donors (such as student aid, scholarships and research activity) or as determined by the university's governing council. Endowments are typically invested to preserve the capital in real dollars, adjusted for inflation, with only a set amount of income generated available for use each year. The largest university we visited had research endowment funds totalling $219 million in 2016, and its annual spending rate was 3% to 5% of the endowment's market value.

Appendix 6 provides a glossary of terms used in this report.

2.0 Audit Objective and Scope

Our audit objectives were to assess whether:

- the Ministry of Research and Innovation has co-ordinated and put effective processes in place to provide research funding to universities, monitor the use of research funding, and assess the benefits to Ontarians; and
- select universities have effective processes in place to manage intellectual property generated from university research, including identifying, protecting, assessing and commercializing intellectual property.

Senior management at both the Ministry of Research and Innovation and the universities we visited, reviewed and agreed to our audit objectives and criteria.

We conducted our audit primarily at the Ministry of Research and Innovation, and at the technology transfer offices of three universities – University of Toronto, McMaster University (in Hamilton) and the University of Waterloo. We selected universities that received significant amounts of research funding; collectively, these three received almost half of all university research funding provided by the province in 2015/16. As well, in order to observe a cross section of practices, we selected universities with different intellectual property ownership models and that used different technology transfer offices to facilitate commercialization.

As background for the universities we selected, **Figure 3** shows the world rankings for the three universities visited according to research performance and output, in relation to universities ranked top 10 in the world from 2012 to 2016, and to universities ranked top 10 in Canada in 2016. **Figure 4** shows how the universities we visited ranked in 2016, nationally and internationally, in six fields of research. The rankings are generally based on the number of research articles issued, the number of times the research is cited elsewhere, and whether research articles appear in high-impact scientific journals. The University of Toronto ranked first in Canada overall and in the top 100 in the world in all fields of research. McMaster ranked in the top 100 in the world in clinical medicine and social sciences, and the University of Waterloo ranked in the top 100 in the world in engineering.

In conducting our audit, we reviewed relevant documents (including research funding agreements and university policies regarding intellectual property ownership and disclosure requirements); analyzed information; and interviewed appropriate Ministry and university staff. We also obtained research grant information for review from the ministries of Health and Long-term Care; Training, Colleges and Universities; and Agriculture, Food and Rural Affairs. In addition, in April we attended the Ontario Centres of Excellence's Discovery 2016, a two-day conference in Toronto that brought together key players from industry, academia and government, as well as students and entrepreneurs, for networking opportunities. At this conference, we obtained knowledge about services offered by federal and provincial government organizations, such as the Canadian Intellectual Property Office, the Ontario Centres of Excellence, and risk capital

Figure 3: Ranking for Universities Visited Relative to the Top 10 Research Universities Worldwide (2012–2014) and Top 10 in Canada (2014)

Source of data: National Taiwan University Ranking

	World			Canada
University	**2012**	**2013**	**2014**	**2014**
Harvard University	1	1	1	
Johns Hopkins University	2	2	2	
Stanford University	3	3	3	
University of Toronto	**7**	**8**	**4**	**1**
University of Washington, Seattle	4	4	5	
University of California, Los Angeles	5	5	6	
University of Michigan, Ann Arbor	6	7	7	
University of California, Berkeley	8	6	8	
University of Oxford	9	9	8	
Massachusetts Institute of Technology	10	10	8	
Canadian Universities				
University of British Columbia	28	27	27	2
McGill University	33	34	33	3
University of Alberta	78	77	79	4
University of Montreal	106	109	86	5
McMaster University	**98**	**118**	**110**	**6**
University of Calgary	148	151	144	7
University of Ottawa	199	199	161	8
Western University	190	193	206	9
Laval University	225	235	226	10
University of Waterloo	**279**	**256**	**261**	**11**

Note: The National Taiwan University Ranking, first published in 2007, ranks universities on research performance and output. About 500 universities were ranked worldwide; 22 were in Canada. The ranking is based on an assessment of research productivity (based on the number of research articles), research impact (based on the number of times research articles are cited elsewhere) and research excellence (based on whether the articles appear in high-impact journals).

Figure 4: Top Universities by Research Field, 2014

Source of data: National Taiwan University Ranking

	University of Toronto		McMaster University		University of Waterloo	
Field	**World**	**National**	**World**	**National**	**World**	**National**
Agriculture	38	3	244	16	232	15
Clinical medicine (e.g., psychiatry)	3	1	50	4	n/a	n/a
Engineering	30	1	193	8	65	2
Life sciences (e.g., biology)	11	1	148	7	n/a	n/a
Natural sciences (e.g., chemistry)	30	1	260	8	172	6
Social sciences (e.g., economics)	8	1	54	4	133	10

Note: See Note for Figure 3 for how these were assessed.

programs offered by the Ministry of Research and Innovation. As well, for comparison purposes and to determine whether best practices exist elsewhere, we researched other jurisdictions and analyzed survey results on performance indicators for technology transfer offices collected by the Association of University Technology Managers from many Canadian and U.S. universities. And finally, we reviewed the results of inspections of the administration of research funding by universities by the Canada Foundation for Innovation (a federal research funding agency that, together with Ontario, provides funding for research infrastructure).

Our audit work on the ONE program, including services delivered by the Ontario Centres of Excellence and MaRS, was limited to a review of key performance indicators and results. We also did not look at the universities' administration of research funding.

3.0 Summary

3.1 Provincial Government

In 2008, the government determined that it needed to extract more value from all provincial investments in all research, including from research funding provided to universities. The Ministry of Research and Innovation was made accountable for achieving this objective. However, our audit found that the Ministry does not co-ordinate or track the province's investments in research and innovation. It lacks key information from other research-granting ministries and agencies. As well, it lacks key information from service delivery agents, such as the Ontario Centres of Excellence to which the Ministry provides funding to provide commercialization support to universities. Equally important, the Ministry has not been attempting to measure the extent to which value has been created from these investments.

In our audit, we estimated that in the last five years, at least $1.9 billion in funding has been provided for university research. This amount excludes Ministry funding provided to service delivery agents (like regional innovation centres) to deliver commercialization services, and tax incentives offered to private companies that invest in university research. Without knowing the payback from either benefits to society or economic benefits through commercialization activities, it is difficult for the government to determine whether it is getting value for money from its significant investment in university research.

Our specific observations regarding the Ministry of Research and Innovation are as follows:

Time to Better Measure Value for Money

- The Ministry needs to develop an implementation plan to monitor whether it is achieving value for money from its investments in research and innovation in accordance with the strategic direction outlined in its 2008 Innovation Agenda. Although some performance measures are in place, this would also involve improving on performance measurement by establishing outcome and potentially socio-economic measures to use in assessing the impact of the Ministry's investments in university research and commercialization.
- The Ministry has a comprehensive selection process for awarding university grants and is generally following its guidelines for awarding these grants. However, it does not subsequently confirm that research outcomes align with those identified in grant proposals.
- In 2009 the Ministry, universities and other stakeholders identified several barriers to commercialization, including a fragmented system of collaboration lacking co-ordination, lack of adequate venture capital and too much regulation and bureaucracy within the commercialization system. In order to address barriers to commercialization, the Ministry

needs to develop a strategy and action plans with timelines to monitor success in breaking down such barriers.

Potential to Benefit Further From Research Funding

- The provincial government has virtually no rights to intellectual property resulting from the research it funds. This is not unusual when compared to a sample of Canadian and international jurisdictions. However, we noted that U.S. Federal government agencies can use inventions made with federal funding royalty-free for their own purposes. We recommended that the Ministry consider the pros and cons of implementing a similar practice in future situations where there may be value to the province. Currently the Ministry of Agriculture, Food and Rural Affairs in Ontario shares in revenue generated by intellectual property created at the University of Guelph with government funds, and a non-exclusive right to use the intellectual property royalty-free for non-commercial internal purposes, perpetually. As a result, it received $3.3 million in net licensing revenues over the past five years.

3.2 Universities

Ontario universities receive a significant amount of money from governments, private industry and other sources to conduct research. In the five years ending April 30, 2014, universities received more than $13 billion for research activity from all sources combined. According to past reviews by the Canada Foundation for Innovation, the universities we visited had proper controls in place to manage research funding provided for research infrastructure. We further found that staff working in Technology Transfer Offices at the universities we visited had experience with assessing the commercialization potential of invention disclosures.

However, universities' technology transfer offices have the opportunity to make some improvements in a few research and intellectual property oversight areas as follows:

Time to More Fully Measure Value for Money

- While universities do track key commercialization indicators and results of their technology transfer offices, they do not yet measure the socio-economic impact of their research activities and commercialization efforts. It may be time to take on this challenge to further confirm value for money is being achieved.

Opportunity to Better Protect and Benefit From Intellectual Property

- Patent protection may not always be taken out on a timely basis at the universities, increasing the risk that others may obtain a patent based on publicly communicated information about the invention. At three universities we visited, the average time ranged between 80 and 188 days for a U.S. provisional patent and between 25 to 211 days for all other types of patent filings.
- None of the Technology Transfer Offices we visited highlighted revenue generation as one driving force. In most years they spent more to operate their office than they gained from intellectual property holdings, before distribution to inventors and other parties. We also noted, that although universities had a significant number of active licences at the year ending April 30, 2013, the number of licences that generated income varied – only 3% at one university, 25% at another and 44% at the third. Comparatively, the average income from licences at Canadian universities was $61,000 and the average income from licences at U.S. universities was $130,000.
- None of the technology transfer offices we visited had formal guidelines or policies on

managing costs associated with commercialization efforts. As well, in a number of cases there were delays in the collection of revenues from intellectual property revenue generating agreements.

- From our review of files in technology transfer offices, documentation was not available to confirm that formal processes were used to assess the feasibility of commercialization and track decisions/actions being taken.

Although our findings relate specifically to the three universities we visited, we encourage other universities across Ontario to review our recommendations, as noted in **Appendix 7**, and act on those that may apply to their individual circumstances.

This report contains 15 recommendations, consisting of 27 actions to address the findings noted during this audit.

OVERALL MINISTRY RESPONSE

The Ministry of Research and Innovation is in agreement with the Auditor General's recommendations stemming from the audit on University Intellectual Property. The Ministry plans to take action to address those directed to it.

The 2008 Ontario Innovation Agenda provided a strategic framework for Ontario. The Ministry has been using this framework to guide its activities. To help with commercialization and innovation, the Ministry also has the Ontario Network of Entrepreneurs (ONE), which is a network of 90 centres across Ontario that provide in-person and online advice, referrals, programs, funds, resource materials, training and connections for people who want to start and grow successful businesses.

The Ministry supports research excellence and talent development through its programs. The Ministry appreciates the Auditor General's recognition that we have a comprehensive selection process for awarding university grants with over 75% of funding decisions being aligned with Ontario's Innovation Agenda. In addition, four of the top 10 Canadian research universities are located in Ontario, including the University of Toronto, McMaster University, the University of Ottawa and Western University. However, the Ministry recognizes that further improvements are needed to be able to better measure the benefits to Ontarians.

The Ministry will continue to assess and refine the programs it offers to support innovation in Ontario.

4.0 Detailed Observations

4.1 Government Research-related Investments and Activities

4.1.1 Lack of Co-ordination of the Province's Investments in Research and Innovation Activities

The Ministry Is Not Tracking Total Funding for Research and Innovation Province-wide

Ontario's 2008 Innovation Agenda recognized that a wide range of ministries and agencies carry out the government's innovation-related investments and activities, including research funding. It identified the Ministry of Research and Innovation as the lead ministry responsible for ensuring that Ontario's efforts to strengthen the province's innovation culture are co-ordinated and comprehensive. However, during our audit, we found that the Ministry was still not effectively co-ordinating the province's investments in research and innovation activities.

In particular, the Ministry did not know the total amount of provincial funding provided annually, either directly or indirectly, for research and commercialization activities. To illustrate:

- Although the Ministry was able to provide us with a list of the research-granting programs that it managed, it was not able to provide us with a comprehensive list of provincial programs from across all government ministries and agencies that fund research. We would expect that, because it is the lead ministry, the Ministry of Research and Innovation would be the custodian of comprehensive financial information on all provincial government funding programs for research and innovation. Using information collected by the Council of Ontario Universities, we determined that the total amount of provincial funding provided to universities for research activities was at least $1.9 billion for the 5-year period ending April 30, 2014 (see **Appendix 5**). However, this is not the total amount the provincial government spent on research and innovation. It does not include research grants it provided to not-for-profit research institutes, research hospitals and colleges, as well as ministry funding provided to service delivery agents (like regional innovation centres) to deliver commercialization services, and provincial tax incentives offered by the Ministry of Finance to private companies that invest in university research.

- The Ministry does not provide funding directly to universities for commercialization activities. Instead, the Ministry makes transfer payments to the Ontario Centres of Excellence and MaRS, which provide commercialization support to universities. During our audit, we noted that the Ministry has not tracked or asked the Ontario Centres of Excellence and MaRS to provide details on the funding or assistance given to universities.

We also noted that the Ministry does not always know whether the research it has funded has resulted in intellectual property. Recipients of research funding submit their final performance report to the Ministry in the last year of funding, noting any accomplishments to date. However, where there is research value or impact, it likely occurs years later following commercialization efforts by the university technology transfer offices, and long after the initial funding agreement's reporting requirements have ended.

Further, the Ministry does not have a process in place to make other ministries aware of new technologies and innovations developed with provincial funding. It does not track if government ministries or agencies, who had initially indicated support for a research project, are using inventions that may have resulted from the research or are benefitting in any other way from funding provided. Applicants for research funding are encouraged to submit letters of support with their research proposals to secure funding. These letters are generally from the private sector, but in some cases they may be from government ministries and agencies with which researchers have established contact. The Ministry of Research and Innovation informed us that the onus to follow up on those research outcomes rests with the ministries and agencies providing the letters of support.

RECOMMENDATION 1

As the lead ministry in ensuring Ontario's efforts to strengthen its innovation culture are co-ordinated and comprehensive, the Ministry of Research and Innovation should establish processes to track and monitor the total direct and indirect provincial funding for research and innovation and the new technologies and inventions resulting from that funding.

MINISTRY RESPONSE

The Ministry agrees to evaluate methods to track and monitor total direct and indirect provincial funding for research and innovation and the new technologies and inventions resulting from that funding.

For example, in the 2015 Budget, the government committed to implementing a common registration process for all transfer-payment recipients. This enables insight into and oversight of the full financial relationship between the government and service delivery partners.

When fully implemented, this will facilitate accurate and complete aggregation of information detailing the funding relationship that the province has with transfer-payment recipients, including institutions receiving research and innovation funding.

No Plan Developed to Implement the 2008 Innovation Agenda

The Ministry has not developed a broad-based and multi-year plan to implement the strategic direction outlined in the 2008 Innovation Agenda. The Innovation Agenda was a strategy for research and innovation which identified key sectors of the economy for investment where Ontario had a strategic advantage and global position. It did not serve as an implementation plan since key initiatives, formal deliverables, timelines and targets were absent from the Agenda. A more detailed plan would provide for a measure of oversight to ensure action was taken within assigned timelines.

Since the release of the Innovation Agenda in 2008, the Ministry has issued three additional strategic planning documents that relate to specific sectors: Ontario's Life Sciences Commercialization Strategy (2010), Ontario Cleantech Asset Map (2010), and Ontario's Water Sector Strategy (2014). While these documents provide strategic direction, they do not serve as implementation plans since they lack detail on all the key initiatives, deliverables, performance measures and targets that would be useful to implement these strategies.

RECOMMENDATION 2

The Ministry of Research and Innovation should develop and implement a multi-year plan to cover the Innovation Agenda's strategic direction as well as provincial goals and initiatives on research and innovation. This plan should provide enough detail to clearly summarize the deliverables, and establish timelines and targets to deliver on key strategies, initiatives and research and innovation programs.

MINISTRY RESPONSE

The Ministry agrees to develop and implement a multi-year plan to cover the Innovation Agenda's strategic direction as well as provincial goals and initiatives on research and innovation.

Although the Ministry did not have a formal multi-year plan linked specifically to the Innovation Agenda, the Ministry has implemented programs that are consistent with the Innovation Agenda—for example, the Ontario Network of Entrepreneurs (formerly the Ontario Network of Excellence), support for venture capital and innovation financing, and investment in research programs.

Province Has Not Sufficiently Monitored Progress on the 2008 Innovation Agenda

As mentioned above, Ontario's 2008 Innovation Agenda had no timeframe for implementation and no established performance targets. Nevertheless, the province committed to developing a scorecard to measure and report on the progress of its investments in innovation and to allow comparisons with other jurisdictions.

In 2010, the Ministry of Research and Innovation developed a scorecard with 23 key indicators and measured the province's innovation performance based on data available at the time. The province ranked "weak" in two categories (commercialization and private investment), "satisfactory" in four areas (technology development and transfer, economic performance, linkages and support, and companies with research and development capacity), and "good" in three areas (public investment, research and education as it relates to innovation performance, and higher education and public research as it relates to innovation capacity). The Ministry selected nine jurisdictions, based on population size and gross domestic product, to compare against the same 23 indicators. They included three Canadian provinces (British Columbia, Alberta and Quebec), two American states (Massachusetts and Pennsylvania), and three other countries (Israel, Australia and Sweden). In general, Ontario performed favourably compared to the other provinces, but tended to perform worse than the foreign jurisdictions.

In the absence of a subsequent assessment by the Ministry, we reviewed the innovation report card (How Canada Performs, A Report Card on Canada) issued by the Conference Board of Canada for 2015. Ontario was the highest rated provincial jurisdiction in innovation. However, the Conference Board of Canada gave Ontario its lowest rating ("D") in the categories of business enterprise R&D investment, patents and labour productivity. The Conference Board's rating would indicate a need for the province to improve in these areas.

The results of the Ministry's 2010 assessment were not made public, and no subsequent assessment was performed. This means there has been no assessment done by the Ministry on whether provincial spending on research over the last five years has been effective.

Publicly Available Indicators Show Little Progress in Ontario's Innovation

During our audit, we noted that the Ministry of Research and Innovation often referred to the Global Start-up Ecosystem Ranking to identify how provincial ecosystems ranked globally. The Global Start-up Ecosystem Ranking periodically ranks the world's top start-up ecosystems for technology companies. Silicon Valley took first place and served as the baseline for comparison and measurement of all other ecosystems. In 2012, two Ontario cities were among the top 20 ecosystems in the world –Toronto was 8th and Waterloo was 16th. In 2015, both Toronto and Waterloo dropped in ranking to 17th and 24th place, respectively. Though the report did not specify the reason for the significant drop in ranking for Toronto and Waterloo, it should be cause for concern and requires further investigation by the province.

RECOMMENDATION 3

To assess progress on the province's 2008 Innovation Agenda and provide comparisons between Ontario and its peer jurisdictions, the Ministry of Research and Innovation should conduct assessments periodically against the indicators in the scorecard and report the results publicly.

MINISTRY RESPONSE

The Ministry agrees to periodically assess the progress of the Ontario Innovation Agenda against indicators in the scorecard and report the results publicly.

The Ministry has been tracking performance measurements (such as patents, private-sector and public-sector research and development personnel, and research infrastructure investment) that capture different facets of the innovation system from publicly available sources, such as Statistics Canada, Thomson Reuters, the Canadian Foundation for Innovation and Tri-Council publications.

4.1.2 No Strategy but Some Action Taken by Ministry to Address Barriers to Commercialization

The Ministry has not developed a comprehensive commercialization strategy to eliminate the barriers to commercialization for intellectual property. In 2009, the Ministry of Research and Innovation and Industry Canada held a roundtable on commercialization barriers to university research. Participants included representatives of industry, university technology transfer offices and MaRS, the Toronto-based regional innovation centre. The group identified several barriers to commercialization and proposed actions to address some of them. Some of the more significant barriers to commercialization identified were:

- fragmented system of collaboration lacking any degree of co-ordination;

- lack of strategic focus on technologies and areas of science;
- weak system of knowledge management, with no means of understanding who is doing what and where;
- need for a stronger focus on partnerships and alliances in the realm of technology transfer;
- too much regulation and bureaucracy within the commercialization system;
- lack of adequate venture capital; and
- indicators such as patents, licences and disclosures are too narrow to measure the true outcomes of commercialization.

In the last several years, the Ministry of Research and Innovation has introduced many commercialization programs and, in conjunction with the Ministry of Finance, has created corporate tax credits and exemptions, which could address some of the barriers. However, it has not put a system in place to monitor its progress in addressing the commercialization barriers that were identified in 2009.

In 2008, the Ontario Tax Exemption for Commercialization was created to allow start-up companies in the field of information and communication technology that commercialize intellectual property developed at Canadian universities and colleges to get a refund on all corporate income tax and corporate minimum tax paid in the first 10 years of operations. However, this tax exemption, designed to promote commercialization, has been ineffective. Eligible companies have to apply for a certificate of eligibility issued by the Ministry of Research and Innovation. To date, only one certificate has been issued and no claims have been filed in regards to this tax exemption.

RECOMMENDATION 4

To address barriers to commercialization of intellectual property, the Ministry of Research and Innovation should consult again with stakeholders for a current review of barriers, develop a strategy and action plan with a timeline for implementation, and monitor its progress on addressing those barriers.

MINISTRY RESPONSE

The Ministry will review the broad range of commercialization outcomes annually and will consult with members of the ecosystem (that is, members of ONE) to adjust and develop programs that respond to the current economic and ecosystem conditions.

The Ministry notes that commercialization programs were created to respond to barriers. For example, ONE was formed and structured to address concerns by:

- making it easier for entrepreneurs to start and grow their businesses in Ontario across all sectors of the economy;
- helping entrepreneurs access the programs and services they need;
- mobilizing knowledge and resources within colleges and universities to support business-led innovation and commercialization;
- co-ordinating provincial, federal, regional and private-sector programming and resources; and
- ensuring the roles of each organization do not overlap and are complementary to each other.

4.1.3 Selection of Research Projects

Applicant Selection Criteria for Research Funding Tied to Innovation Agenda

The 2008 Innovation Agenda highlighted four areas of the economy for initial strategic investment where Ontario already held a position of global importance: bio-economy and clean technologies, advanced health technologies, pharmaceutical research and manufacturing, as well as digital media and information and communications technologies. The Ministry has established a comprehensive selection process for awarding grants under the Research Excellence, Research Infrastructure and Early Researcher Awards. For funding awarded under each program for the last five years, see **Appendix 1**. The Ministry's guidelines for these three key research grant programs, through which it funds university research, state that preference is given to the project proposals in the targeted areas identified in the 2008 Innovation Agenda. We reviewed all projects that have been awarded a research grant since the release of the 2008 Innovation Agenda and noted that at least three-quarters of the funding went to projects in the targeted sectors. Specifically, 76% of Early Researcher Awards, 79% of Research Infrastructure awards for large infrastructure, and 97% of Research Excellence awards went to projects proposing research in the targeted sectors.

Proposals for funding under the Research Excellence program are evaluated in four categories, one of which is the potential research impact. Research impact is based on the factors of commercialization (for example, market potential), economic benefits (for example, potential to increase Ontario's productivity and competitiveness) and societal benefits (for example, preserving the environment). Successful applicants require a score of at least 85% in this area. Proposals for funding under the Research Infrastructure program are evaluated, among other things, on the potential economic and societal impacts. Successful applicants require a score of at least 80% in these areas.

4.1.4 Ministry's Oversight on the Use of Funding

No Comparison of Final Research Outcomes with Potential Outcomes Noted at Proposal Stage

Although the Ministry of Research and Innovation has established a comprehensive selection process for awarding grants under the Research Excellence and Research Infrastructure programs, we confirmed with the Ministry that they do not compare actual results regarding impact with those noted in the grant applicants' original proposals at the time they applied for funding. This type of analysis would be useful to determine whether universities are overstating the proposed benefits of their research in order to secure funding.

Improvements Needed to Measure the Impact of the Ministry's Investments in Research and Commercialization

The Ministry has developed performance indicators for its three key research grant programs for universities. **Figure 5** lists the performance indicators tracked by the Ministry and the combined results for all three research grant programs over the past five fiscal years. The Ministry uses these indicators to assess knowledge transfer; the quality of research; and the ability to enhance the knowledge, training and skill of research talent in the province. Information used to assess performance is obtained from annual progress reports submitted to the Ministry by grant recipients under the Research Infrastructure, Research Excellence and Early Researcher Awards programs. For the Research Infrastructure program, additional performance information is obtained from the Canada Foundation for Innovation, which is a co-sponsor and also collects performance data from grant recipients. The Ministry compiles this information by individual grant program and by all three grant programs combined.

The Ministry has also developed performance indicators for the commercialization activities it funds. Key performance indicators used to assess commercialization activities are listed in **Figure 6**. These include results for the last two fiscal years only because the Ontario Network of Entrepreneurs (ONE Program) was established in 2013 and the Ministry used different performance measures prior.

The performance results for research funding indicate that over the last five years (2009/10-2013/14), research grants have resulted in the creation of 172 start-up companies with 830 new employees. In addition, performance results indicate that over the last two years (2013/14-2014/15)

Figure 5: Ministry Performance Measures and Results for Major Research Grant Programs, 2009/10–2013/14

Source of data: Ministry of Research and Innovation

What Indicator is Measuring	#	Indicators[1]	2009/10	2010/11	2011/12	2012/13	2013/14	5-Yr Total/ Since Inception
Knowledge transfer	1	Invention disclosures	197	191	212	263	212	**1,075**
	2	Patent applications	117	161	193	219	152	**842**
	3	Patents granted	54	33	84	60	105	**336**
	4	Active Licences	41	49	74	78	98	**340**
	5	Spinoff/Start-up companies[2]						**172**
	6	Employees in spinoff companies[2]						**830**
Quality of research	7	Citations	29,017	32,650	85,195	60,424	48,376	**255,662**
	8	Publications	5,647	5,683	8,307	5,169	5,586	**30,392**
Ability to enhance research talent	9	Highly qualified people in university research projects	14,718	13,575	17,557	15,040	13,078	**73,968**
		Researcher	3,514	3,025	3,947	2,676	3,029	**16,191**
		Post-doctoral fellows	1,430	1,485	1,917	1,218	1,528	**7,578**
		PhD	2,672	2,146	3,269	3,121	2,524	**13,732**
		Master	2,899	3,043	3,423	1,819	2,172	**13,356**
		Undergraduate	3,059	2,421	3,540	3,958	2,272	**15,250**
		Other	1,144	1,455	1,461	2,249	1,553	**7,862**
	10	Degrees awarded to research team members[1]	1,104	1,328	1,695	1,283	1,350	**6,760**
		PhD	180	213	314	268	330	**1,305**
		Master	417	403	672	479	491	**2,462**
		Undergraduate	507	712	709	536	529	**2,993**

1. Annual results are combined for all Ministry of Research and Innovation flagship research grant programs – Research Infrastructure, Research Excellence and Early Researcher Awards – except for indicator 10, which combines results for only the latter two.
2. Results are since inception of the Research Infrastructure, Research Excellence and Early Researcher Awards programs.

Ministry-funded commercialization activities led to the creation of 1,055 new companies, over 10,800 new jobs, and the retention of almost 16,500 jobs. However, the accuracy of these results is in question.

This and other concerns with the approach used by the Ministry to assess research and commercialization performance are as follows:

- Performance indicators for both research grant programs and commercialization programs are primarily activity-based measures and do not measure impact. Aside from tracking jobs created, jobs retained and start-up companies, the Ministry does not have a mechanism for measuring the impact or benefits to Ontarians (also referred to as socio-economic benefits). Ontario is not alone in this respect. No other jurisdiction we researched in Canada and abroad had any publicly available socio-economic performance measures. In 2010, the Canada Foundation for Innovation, a federal funding agency, released a study identifying six types of socio-economic benefits (including, improvements in health care treatments, environmental benefits, and improved regulatory measures) against

Figure 6: Key Ministry Performance Measures and Results for Commercialization Activities, 2013/14 and 2014/15

Source of data: Ministry of Research and Innovation

Performance Indicators	2013/14	2014/15	Total
Economic			
New jobs created	6,482	4,350	**10,832**
Jobs retained	9,773	6,679	**16,452**
New firms created	811	244	**1,055**
New customers – Canadian	3,534,984	8,547,914	**12,082,898**
Sales revenue – Canada ($ million)	230	211	**441**
Total sales revenue ($ million)	463	406	**869**
Intellectual Property			
Published peer-reviewed publications	286	172	**458**
Patent applications submitted	999	804	**1,803**
Patent applications granted	290	301	**591**
Licenses established	32	35	**67**
Disclosures filed	185	65	**250**
Product Development			
Prototypes developed	2,365	3,052	**5,417**
Process improvements developed	1,395	1,390	**2,785**
Products launched/brought to market	1,667	2,588	**4,255**
Services launched/brought to market	1,497	2,270	**3,767**
Process improvements launched/brought to market	1,767	4,183	**5,950**

which research can be evaluated, but it too had not yet developed performance measures to capture their impact. From our discussions with representatives from the Canada Foundation for Innovation, the Ontario Council of University Research (a working group of the Ontario Council of Universities), and technology transfer staff at the universities we visited, this may be an area for all stakeholders to collectively develop useful measures to assess the impact and benefits to Ontarians. The 2008 Ontario Innovation Agenda recognized the need to measure and report on outcomes relating to how they impact the economy and quality of life. As well, the Higher Education Quality Council of Ontario, an independent advisory agency of the provincial government, issued a report in 2015 on Measuring the Economic Impact of Postsecondary Institutions, which highlighted the need for governments and universities to measure outcomes from using research that affect society.

- The Ministry does not distinguish between funding for basic and applied research. Basic research, also called pure research, is scientific research that improves understanding of natural or other phenomena and advances fundamental knowledge. Applied research uses scientific theories and new ideas derived from basic research to develop new technology or techniques to intervene and alter natural phenomena or solve practical problems. So although basic research usually does not lead directly to inventions or discoveries with commercial potential, there is merit in basic research in that it creates the means to move forward on applied research. According to an academic research study from the University of Regina, basic and applied research go hand in hand whereas, without continuous generation of basic knowledge, there will be no applied research and commercially viable innovation in the longer term. Basic research would therefore appear to not perform well when judged against knowledge transfer indicators (such as, number of invention disclosures, patents and licences). Therefore, performance indicators for basic research would have to differ from performance measures for applied research.

- Performance results for commercialization programs are incomplete and unreliable. Performance indicators for commercialization initiatives are based on client surveys conducted by service delivery agents (for example, the Ontario Centres of Excellence and MaRS). Clients receiving commercialization support are typically small and medium sized enterprises, including start up companies. The Ministry acknowledged that there were limitations in the performance results because they were based on surveys. These limitations included low response rates and a change in the mix of respondents from one year to the next. For example, results in the 2014/15 annual report for the Business Acceleration program, administered by MaRS, were based on a survey response rate of 30%. In another example, according to the Ministry only 4% of the clients for one of the regional innovation centres responded to the 2014/15 survey. Similar problems were not found with recipients of research grant funding because funding is contingent on meeting reporting requirements. The Ministry informed us that service delivery agents were expected to have revised their contracts with clients by April 2016 in order to improve response rates.
- There is also a risk of duplicate information. The Ministry informed us that clients receiving commercialization support from more than one Ministry-funded commercialization program and who report to more than one service delivery agent could be submitting the same performance results to all programs, hence overstating overall performance. There is also no assurance that information reported to commercialization programs on the number of inventions, patents and licences were not already included in performance measures for the research grant.
- Performance results on research funding and commercialization programs are not publicly reported. Performance results are used by the Ministry for internal purposes but are not transparent to the public, despite the recommendation of the Ontario Research and Innovation Council, the advisory to the Ministry, to be accountable and transparent. The need for regular public reporting has been reiterated by the government. In 2014, the Premier notified the Minister of Research and Innovation in writing that one of the Ministry's priorities was to promote openness and accountability by developing a website that highlights outcomes for all government investments in innovation, whether successful or not, including their impact on employment, growth and secondary innovations.

RECOMMENDATION 5

To ensure the Ministry of Research and Innovation (Ministry) is getting value for money for its investment in research and commercialization activities, the Ministry should:

- track what portion of research funding goes to basic vs. applied research, and develop appropriate indicators for each type of research;
- collaborate with stakeholders to collectively develop useful performance measures that assess the socio-economic benefits to Ontarians;
- increase the reliability of performance results by implementing measures to increase the response rate from clients receiving commercialization supports and

developing processes to eliminate duplicate reporting; and
- publicly report performance results on research funding and commercialization programs.

MINISTRY RESPONSE

The Ministry agrees to develop methods to track basic versus applied research. The Ministry notes that the delineation between basic and applied research is often not clear and is also dependent on the sector. The Ministry sees value in maintaining a standard and consistent reporting template in order to reflect the spectrum of indicators and to minimize the reporting burden.

The Ministry agrees to continue to work toward the development of socio-economic indicators.

As noted in the audit report, the Ministry has been working with its data collection partner to improve survey responses. The Ministry is aware of the challenges of collecting reliable and complete data for early stage companies and start-ups. Despite these challenges, the data gathered by the Ontario Network of Entrepreneurs (ONE) is held up as unique in the world in terms of the quantity of data collected. The Ministry agrees to continue to improve its data collection practices to address these challenges.

The Ministry agrees to publicly report on research and commercialization funding performance results.

4.2 Intellectual Property Rights

Intellectual property rights refer to the right to own intellectual property, the right to share in future income from the sale or licence of intellectual property, or the right to use intellectual property royalty-free. Research funding agreements and university policies typically specify the rights of inventors, universities and research sponsors. **Figure 7** summarizes policies on intellectual property ownership and profit sharing at the three universities visited.

4.2.1 The Province Does Not Typically Claim Rights to Intellectual Property Resulting from the Research It Funds

We reviewed a sample of contracts and funding agreements between provincial ministries, universities and the Ontario Centres of Excellence and found that none gave the province any ownership rights to intellectual property created with government funding.

The contracts were either silent on the issue or deferred to the institutions' policy on intellectual property ownership. In addition, except in one case, the contracts did not give the government the right to share in future profits from the sale or licence of intellectual property, or any right to use intellectual property royalty-free. The exception was the master research agreement between the Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and the University of Guelph. The contract gives the Ministry a share in revenue and a perpetual non-exclusive right to use the intellectual property royalty-free for non-commercial internal purposes. Over the past five years OMAFRA received $3.3 million in net licensing revenue, which represents a share of about 35%.

4.2.2 Intellectual Property Rights Vary Among University Research Sponsors

When comparing sponsors of university research, we found that the federal government and Ontario shared a similar lack of intellectual property rights. Industry partners also had similar ownership rights, except in cases where industry personnel were involved in conducting the research with university members and/or resources. But, unlike the government of Ontario, industry partners usually had the right to share in future income.

Figure 7: Intellectual Property Ownership and Profit-sharing Policies at Universities Visited

Prepared by the Office of the Auditor General of Ontario

University	Ownership Policy	Distribution of Income Policy
University of Toronto	Owned jointly by the university and the inventor(s) at time of creation, unless these rights have been given up (in whole or in part) to a third party under a prior written agreement. When it comes time to commercialize, sole ownership is assigned to the university if the inventor(s) wants the university to assist and support. Sole ownership is assigned to inventor(s) if inventor(s) choose to commercialize through their own efforts.	• When university commercializes: 40% to inventor and 60% to university (to technology transfer office, department, or to a fund that supports future research). • When inventor commercializes: 75% to inventor and 25% to university (to department or to a fund that supports future research).
McMaster University	Owned by the university, unless rights have been given up to a third party under a prior written agreement. The inventor (academic researchers only) can get sole ownership if approved by the Intellectual-property Board.	• When university commercializes: 50% to universities and 50% to inventors or reinvested in future research (breakdown determined by Intellectual-property Board). • When inventor commercializes: 25% to universities.
University of Waterloo	Owned by the creator(s), unless rights have been vested to a third party under a sponsorship agreement.	• When university commercializes: Generally, 75% to inventor and 25% to university (of which half stays with corporate level and half flows back to originating faculty). • When inventor commercializes: 100% to inventor.

Universities also had rights to intellectual property that the Ontario government did not have. Two of the universities we visited had some level of ownership (100% if they became the commercialization agent), and shared in future profits whether or not the university became the commercialization agent. The third university had no ownership rights and shared in future profits only if it was responsible for commercialization. Unlike the province, all three universities had the right to use intellectual property royalty-free for non-commercial purposes (for instance, research, teaching and administration), even in cases where the intellectual property was owned entirely by the inventor and the university was not involved in commercialization.

4.2.3 Other Government Jurisdictions Typically Do Not Claim Intellectual Property Rights

By comparing other Canadian and international jurisdictions that fund university research, we found that practices regarding ownership and income sharing were similar to those in Ontario. They typically do not maintain ownership of any resulting intellectual property or have the right to any future income. Regarding the right to use intellectual property royalty-free for non-commercial purposes, all but one international jurisdiction had a similar practice to Ontario. The U.S. federal government, under the 1980 *Bayh-Dole Act* which served to transfer intellectual property ownership from the federal government to institutions and inventors, still reserved the right to a royalty-free licence for its own use for inventions created with federal funding.

The Ministry informed us that Ontario's rationale of not having intellectual property rights on provincially funded research projects, including licence income and/or royalty-free use, is based on the view that "government ownership of IP impedes the speed of commercialization." The Ministry describes the current approach as "consistent with best jurisdictional practices, federal policy and academic/industry preference." In addition, government ownership of intellectual property was viewed as not being cost effective since there appears to be a presumption that resources required to manage intellectual property rights may be more costly than the income generated.

Although there may be costs involved with owning intellectual property and managing licencing agreements, royalty-free use of intellectual property has the potential to provide future cost savings to the government. Also, intellectual property rights should not be viewed as an impediment to commercialization without further detailed analysis of the impact and potential value to Ontario.

RECOMMENDATION 6

The province should re-visit and assess the pros and cons of including provisions in selective research funding agreements that would allow it to share in future income from the sale or licence of resulting intellectual property, and/or to have the non-exclusive right to use the intellectual property royalty free for non-commercial internal purposes, where there may be value to do so.

MINISTRY RESPONSE

The Ministry agrees to assess the pros and cons of adopting this approach.

4.3 University Oversight of Research and Intellectual Property

4.3.1 Proper Controls in place to Manage Research Funding according to the reviews by the Canada Foundation for Innovation

Every three or four years the Canada Foundation for Innovation, which provides universities with funding to build research infrastructure, conducts reviews at universities to assess the controls in place to properly manage the funding provided. Specifically, the assessment includes review of controls and procedures to ensure the timely implementation of projects, mitigation of the risk of cost escalation, the use of funds, the university's actions to sustain infrastructure over its useful life, and the optimal management of the portfolio of funded projects. The universities confirmed that processes and practices evaluated by the Canada Foundation for Innovation are also used to manage research funding provided by the province. As a result, to avoid duplication, the Ministry of Research and Innovation relies on the results of the reviews conducted by the Canada Foundation for Innovation.

For the universities visited, all three universities had reviews conducted in the last two years, but only two universities had recent reports. These two universities received satisfactory ratings in all the key evaluation criteria that were rated. The third university was expecting to receive the report of its results by December 2015.

4.3.2 Performance Measures

The Association of University Technology Managers (AUTM) surveys universities annually on a number of performance measures. This allows universities to compare commercialization results across Canada. **Figure 8** compares key indicators for the universities visited and for other Canadian and U.S. universities for the 2013/14 fiscal year. The universities we visited typically did not have any

Figure 8: Key Commercialization Indicators and Results for Technology Transfer Offices, for Fiscal Year Ending 2014

Source of data: FY2014 Licensing Activity Surveys by the Association of University Technology Managers

	Ontario Universities Visited			Canadian Universities for Comparison			U.S. Universities for Comparison		
	Universities[1]			Universities[2]			Universities[3]		
	1	2	3	1	2	3	1	2	3
Total Research Expenditures[4] ($ million)	424	275	181	564	411	463	812	1,605	887
Patent applications filed	78	83	32	119	105	81	543	555	590
US Patents issued	17	2	5	32	23	22	89	94	187
Invention disclosures received	147	71	29	128	128	90	452	453	481
Disclosures included in licences executed	62	24	4	27	44	39	n/a	139	106
Start-up companies formed	20	3	12	3	6	5	10	13	23
Active licences at Y/E	203	183	298	328	239	239	699	713	1,400
Licences generating income each year	65	154	7	83	55	32	270	376	655
Licences generating income over $1M during the year	3	0	0	2	1	0	3	2	6
Total licence income in year[4] ($ 000)	34,664[5]	2,284	320	5,897	4,819	557	17,332	16,527	108,605

1. 1 is the University of Toronto; 2 is McMaster University; and 3 is the University of Waterloo (only university visited without a medical school).
2. Universities in large Canadian provinces.
3. Universities in the United States with significant research activity.
4. In Canadian or U.S. dollars as applicable.
5. This is an anomaly that includes a $27 million payment from one technology that achieved a significant milestone in 2014 with the initiation of a phase 3 trial. The total licence income averaged $4.6 million over the previous 5-year period.

n/a – No information was included in the data set. The prior year figure was 106.

performance measures for the technology transfer offices beyond what they reported in the AUTM survey.

Universities Do Not Measure Socio-economic Impact of Research and Innovation

As is the case with the Ministry of Research and Innovation, universities also use activity based measures that do not comprehensively capture the socio-economic impact of their research activities and commercialization efforts. In addition, some of the existing measures are not useful; for example, it would be more useful to know how many start-up companies have been in business for at least five years, in addition to how many were created in the year. This issue of assessing economic and social benefits to Ontarians was discussed in more detail earlier in **Section 4.1.4**.

Intellectual Property Generating Little Revenue for Universities

None of the technology transfer offices highlighted revenue generation as a key driver. They told us their goals were primarily to help build successful partnerships among industry, business, government and the university research community, and to turn ideas into commercially viable products and services, companies and jobs for societal and economic benefit.

Similar to universities in other jurisdictions, the three technology transfer offices we visited generally operated at a deficit. As shown in **Figure 9**, from 2011/12 to 2013/14, two offices generated

Figure 9: Revenue Collected From Intellectual Property Compared to Expenses of the Technology Transfer Office, for Each University Visited

Source of data: Technology Transfer Offices for the three universities visited.

	2011/12 ($ 000)	2012/13 ($ 000)	2013/14 ($ 000)
University of Toronto			
Revenue before distribution	6,102	3,005	34,664
Revenue to University*	1,192	1,489	9,469
Expenses of the Technology Transfer Office	2,965	2,767	2,260
Net income/loss to University	(1,773)	(1,278)	7,209
McMaster University			
Revenue before distribution	2,120	2,370	2,284
Revenue to University*	1,014	1,119	1,110
Expenses of the Technology Transfer Office	1,903	1,780	2,179
Net income/loss to University	(889)	(661)	(1,069)
University of Waterloo			
Revenue before distribution	706	559	320
Revenue to University*	n/a	n/a	n/a
Expenses of the Technology Transfer Office	1,371	1,438	1,601
Net income/loss to University	n/a	n/a	n/a

* Revenue to University is any revenue retained by any office within the university e.g. technology transfer office, research office, faculties, etc.

n/a – data not available

less money from their intellectual property holdings than it cost to operate their office in all three years. The other one brought in less money from intellectual property than it cost to operate its office for two of the three years. According to a 2009 study, more than half of the university technology transfer offices surveyed in the U.S. brought in less money than the cost of operating the program. Furthermore, only 16% of U.S. university technology transfer offices were self-sustaining and generated enough revenue, after distributions to inventors, to cover operation costs.

A number of studies outline the reasons it is difficult for technology transfer offices to cover their operating costs with revenue accrued to the university from inventions. An expert federal panel reported in 2011 in *Review of Federal Support to Research and Development* that it was difficult for innovative firms with high growth potential (that is, start-ups) to get the capital needed to achieve commercial viability. A 2014 academic study also highlighted the fact that the amount of licensing income generated is not under the direct control of the technology transfer offices due to the effectiveness of the technology, the market, and the licensing company's efforts.

In order to gain insight into how effective technology transfer offices were in commercializing intellectual property at the three universities visited, we gathered data on (1) the overall average income received each year from income-generating licences (using data submitted to the Association of University Technology Managers for the five-year period from 2009/10 to 2013/14) and (2) the overall average percentage of income-generating licences making more than $1 million annually (using the same data). We noted the following:

- For (1), we compared the annual average income from the three universities visited to that for all reporting Canadian universities combined and that for all reporting U.S. universities combined. The nation-wide averages were $130,000 for all reporting U.S. universities combined and $61,000 for all reporting Canadian universities combined. The three universities we visited had averages of $13,000, $59,000 and $160,000.

- For (2), we compared the annual average percentages from the three universities visited to that for all reporting Canadian universities combined and that for all U.S. universities combined. The nation-wide averages were 1.07% for all reporting U.S. universities combined and 0.81% for all Canadian universities combined. Only one of the universities we visited reported holding licences that made over $1 million annually (representing 2.3% of its total income-generating licences). One of the other two universities told us that it had a single technology that generated over a million dollars annually but that this was generated through several non-exclusive licensing agreements and therefore would not be captured by the data. The other university told us that it focused its efforts on the creation of start-up companies and that the university defers collecting revenue until the start-ups become profitable.

Better Public Reporting of Performance Required

At each of the universities visited, we reviewed the performance information reported by the technology transfer offices to the Vice President of Research, and noted that only one university's technology transfer office reported on its performance measures regularly.

Only two universities we visited issued annual research reports that were available publicly. In both cases, these reports included information on research funding, recognition awards and citations. Only one university reported against some performance measures for commercialization efforts carried out by the technology transfer office.

Significant Research Discoveries at the Three Universities Visited

We asked the universities to tell us some of their most significant research discoveries to date. **Figure 10** summarizes the discoveries or inventions identified.

RECOMMENDATION 7

In conjunction with government sponsors, universities should develop socio-economic performance measures to better communicate the outcomes of their research and commercialization efforts.

SUMMARY OF UNIVERSITIES' RESPONSES

The universities agree that socio-economic performance measures would be useful for assessing outcomes of research and commercialization efforts, but all noted that collecting such data would be challenging given the breadth and volume of research activity occurring at universities.

One university stated that since funding agencies typically drive what is required for research reporting purposes, government agencies should collectively take a leadership role in establishing harmonized reporting requirements. This would allow for the measurement and comparison of the socio-economic impact of government-sponsored research.

Two universities indicated that they would explore collaborating with government sponsors to identify appropriate socio-economic performance measures. Another university indicated that it would consider systematic approaches to collect socio-economic measures.

Figure 10: Significant Discoveries and Inventions as Identified by the Universities Visited

Source of data: Universities visited

Discovery/ Invention	University of Toronto	McMaster University	University of Waterloo
1	Insulin (1921) – discovery and first commercial production.	IBDQ (1997) – quality of life questionnaire for patients suffering from intestinal bowel disease; used by pharma/biotech companies doing clinical trials to treat diseases.	FORTRAN Compilers (1960s) – WatFOR and WATFIV compilers revolutionized computing.
2	Pablum (1930) – invention of first processed baby cereal.	Early Development Instrument (2007) – electronic tool used to assess and measure child development.	Text Search Engine (1988) – Oxford English Dictionary searchable text database software developed which lead to the creation of Open Text Corporation.
3	Anti-blackout suit (1942) – invention ultimately becomes space suit.	Respiratory Virus Panel technology (2006) – biomarker technology tool incorporated into a diagnostic device for the detection of respiratory viruses.	Permeable Reactive Barriers (1990s) – groundwater treatment technology used globally to clean up industrial contaminated sites.
4	Electron microscope (1938) – world's first electron microscope developed.	OSCAR (2005) – electronic medical record software widely adopted in Canada and around the world.	Quantum Processing (2007) – current world record for a 12-qubit quantum information processor.
5	Artificial cardiac pacemaker (1951) – first artificial cardiac pacemaker pioneered.	Multivariate analytics (2002) – patented process to analyze large batches of data to correlate with process improvements or product quality; used to monitor and optimize manufacturing systems for the chemical, food and energy industries.	Structural Similarity (SSIM) index (2004-14) – Engineering Emmy® Award (2014) winning software that accurately predicts how humans perceive image/video quality.

RECOMMENDATION 8

Universities should review their research reporting requirements on performance measures, and identify opportunities to report more detailed information in the annual research report and in management reports going to senior management.

SUMMARY OF UNIVERSITIES' RESPONSES

The universities agreed with this recommendation. Two universities stated that they will continue to review indicators for relevance and update them as necessary. The third university indicated it will undertake a review of its research reporting requirements in consultation with key stakeholders and consider what information should be reported in an annual research report and in management reports.

4.4 Commercialization Activity at Universities

4.4.1 Disclosure of Inventions to the University

A disclosure is a confidential written notification to a university's technology transfer office that an invention has been created using university resources by faculty, employees, students or persons from the private sector working in collaboration with the university. It is the first official acknowledgement to the university of the creation of intellectual property.

Policies at each of the universities visited require all staff and students to disclose intellectual property discovered to their university's technology transfer office. Each university has a standard invention disclosure form to be completed by inventors and submitted to the university's technology transfer office. This disclosure form usually includes a description of the invention, the sources of funding that supported its creation, the inventors and contributors behind the invention (whether internal or external) and whether details of the intellectual property have been disclosed publicly.

Figure 11 shows the number of inventions disclosed from 2009/10 to 2013/14 to the technology transfer offices at the universities visited. We compared total research expenditures with the number of invention disclosures for the same year and noted that, over the five-year period, two universities spent on average almost $5 million research dollars for every invention disclosure generated, and one spent $2.6 million. In comparison, using AUTM data for the 5-year period 2008/09-2012/13, we noted that the average spent by all Canadian and U.S. universities to generate a disclosure was $3.3 million and $2.7 million respectively. Two universities we visited require disclosure even when the inventor does not intend to commercialize. The other university, with the lowest number of invention disclosures and the highest research spending per disclosure, did not take any ownership rights and did not require inventors to disclose their inventions if they had no intention of having them commercialized by the university's technology transfer office. A few issues regarding the invention disclosure process are described in the following subsections.

Universities Could do More to Ensure All Inventions are Disclosed

The onus is on researchers to disclose their discoveries to the technology transfer office. The universities visited are, thus, unable to ensure that all intellectual property is being disclosed. Each university posts disclosure policies regarding intellectual property on its website. In addition, the technology transfer offices make presentations to interested staff and students to inform them about their services and policies related to intellectual property. We reviewed copies of the presentation material and noted that presentations made by the technology transfer offices did not make it clear that the universities require researchers to disclose any inventions.

At the three universities we visited, the number of invention disclosures may be one of the factors considered during annual performance reviews of faculty members and could affect future promotions, merit increases and tenure. However, during our audit, we noted that faculty departments had to obtain the information required for annual performance reviews, such as the number of research discoveries or invention disclosures directly from

Figure 11: Number of Invention Disclosures by Universities Visited and Research Dollars Spent for Every Invention Disclosed, 2009/10–2013/14

Source of data: Universities visited and the Association of University Technology Managers

	Number of Invention Disclosures					5-Year Averages		
	2009/10	2010/11	2011/12	2012/13	2013/14	# of Invention Disclosures	Total Research Spending ($ 000)	Research Spending Per Invention Disclosure ($ 000)
University of Toronto	136	192	158	166	147	160	422,807	2,646
McMaster University	54	68	77	65	71	67	291,408	4,349
University of Waterloo	45	43	26	47	29	38	186,268	4,902

the faculty member, rather than independently through the technology transfer office. We confirmed with technology transfer office staff that information on discoveries reported by faculty members for performance review purposes were not shared or reconciled with the invention disclosures made to the technology transfer office. If faculty departments used only disclosures made to the technology transfer office for performance review purposes, there may be more incentive for faculty members to disclose their inventions to the office.

We also noted that the technology transfer offices did not monitor status reports prepared periodically by research grant recipients, sometimes with the help of the university research office, and submitted to their funders to help ensure completeness of invention disclosures. As previously mentioned, the Ministry of Research and Innovation requires research grant recipients to submit a progress report to summarize the project status and highlight any achievements. Similar reporting requirements also exist in funding agreements with the federal government and private industry. Monitoring these reports can help identify any undisclosed inventions.

Researchers Need Guidance on Use of University Resources to Create Intellectual Property

There is a risk that discoveries using significant university resources are undisclosed at two universities we visited that require disclosure even when the inventor does not intend to commercialize. This could lead to a loss in revenue for the university, or the new technology could be taken out of province and commercialized elsewhere. When no significant university resources are used, inventors inherently own their own intellectual property without any obligation to report, disclose or share future revenues with the university. It is up to the researchers' respective faculties to confirm that no significant university resources were used. However, the technology transfer offices do not provide any guidelines outlining the nature and extent of work that faculties need to do to verify that university resources were not used. We found that both technology transfer offices did not retain documentation of the work done by faculties to confirm whether significant university resources were used.

RECOMMENDATION 9

To ensure that all intellectual property created with university resources is disclosed, universities should:

- develop guidelines to help faculties assess university resources in the creation of intellectual property and to require such assessments be documented;
- clearly communicate invention disclosure requirements during technology transfer office presentations to staff and students;
- require all faculties to use only disclosures made directly to the technology transfer office for performance review purposes; and
- use research grant status reports sent to research funders to anticipate and track completeness of disclosures.

SUMMARY OF UNIVERSITIES' RESPONSES

The universities were generally in agreement with this recommendation.

For the two universities we visited that require disclosure even when the inventor does not intend to commercialize, one indicated that it will consider developing formal guidelines to help assess the university resources used in the creation of intellectual property. The other did not provide an action plan because, under the university's policy, the creator is the owner of the intellectual property.

All universities agreed with clearly communicating invention disclosure requirements through presentations and on their websites.

With respect to the recommendation to require all faculties to use only disclosures made directly to the technology transfer office for performance review purposes, one university stated that it would consider the feasibility of such a process. Another university said it was in the process of ensuring sufficient reporting of disclosure information to faculties. The third said it expects this recommended action to be addressed by the upcoming implementation of online reporting for invention disclosures.

With respect to the recommendation to use research grant status reports to track disclosures, two universities said they would consider it. The other university did not feel the need to track potential disclosures since, under its intellectual property policy, the university did not have any rights to ownership.

4.4.2 Assessments of Invention Disclosures

Once a discovery or invention is disclosed to the technology transfer office, the first step in the technology transfer process is to assess whether the disclosure warrants the investment of additional resources for further development and commercialization.

The technology transfer offices we visited assessed inventions against four factors:

- technical merits of invention;
- inventors' level of commitment to support the invention through the commercialization process;
- marketability (considering barriers to entry, time to market, potential growth, industry trends, and customer base); and
- patentability, or determining whether prior patent filings exist for the same invention.

The assessment generally begins when transfer office staff meet with inventors to get a better understanding of the invention's technical merits and gauge their level of commitment to supporting the invention through the commercialization process. Technology transfer office staff told us that without inventor support or a solid technological basis for the invention, it is challenging to proceed with commercialization; the offices are often looking for private industry to license an invention, so its technology must be sound. To obtain a patent, the technology transfer office must go through a process of proving to a patent office why the invention warrants one. Because inventors are often the greatest source of information and technological expertise regarding the invention, their involvement is required to increase the likelihood of obtaining a patent. The assessment process also involves reviewing the technical aspects of the disclosure contained in the disclosure form, conducting patent searches (if applicable), and analyzing the market and competitive technologies to assess the invention's commercialization potential and likelihood of success, which will guide the commercialization strategy.

Overall we noted that transfer office staff who assessed the commercialization potential of invention disclosures were qualified to make the assessments. We found that many of the staff who performed the assessments held master's degrees and PhDs, and were generally assigned to assess disclosures in the fields most closely related to their educational background and experience.

Our issues with the assessment of invention disclosures are noted below.

Assessment of Commercial Potential of Disclosures is Subjective

Technology transfer office staff explained to us that more specific criteria for the assessment of commercial potential do not exist because of the unique nature of each disclosure. As such, the assessment process is subjective. Our review of assessment practices in other jurisdictions did not identify additional or more specific assessment criteria. This makes the assessment process subjective. Given the subjectivity involved, it may be prudent for assessments to undergo a second level of review by another technology transfer staff member, particularly for the more complex disclosures. However, a formal second-level review process was not in place at the universities we visited. Technology transfer offices told us that staff meet regularly to discuss issues relating to disclosures and to seek input from co-workers, but this did not constitute a formal second-level review prior to acceptance.

Technology Transfer Offices Do Not Formally Track How Long Assessments Take

Timely assessment of invention disclosures is important for patent protection because delays in filing patents create a risk that others could file for patent protection first. We noted that each of the technology transfer offices we visited had established a different target for completing initial assessments: four weeks, 45 days, and three months. However, none formally tracked compliance with their targets.

Commercialization Decisions Lack Documentation

We found that documentation to support the decision to accept a disclosure for commercialization varies according to technology transfer office. One office typically used an external organization to assess just over half of the disclosures it received. At this external office, a formal assessment form was used to record initial patentability and marketability assessments, but this document was missing from the files in 30% of the projects we reviewed. The other two offices did not formally document their assessment decisions. We were told that they informed inventors of their decisions either verbally or via email.

Only one technology transfer office had a policy requiring an annual review of decisions to determine whether to continue or terminate efforts to protect and commercialize inventions. However, we could not confirm that any review took place because none of the reviews were documented. The other two offices did not have a formal policy for project re-evaluation. All three offices said disclosures are constantly evaluated during the commercialization process as staff work to negotiate and secure licensing deals, determine whether to pursue and file patent protection, arrange additional development funding, and communicate with inventors. We reviewed the files but were unable to confirm whether this type of ongoing evaluation actually occurred because of limitations in the available documentation, as described below.

RECOMMENDATION 10

In the absence of objective criteria to assess the commercial potential of disclosures, university technology transfer offices should develop a formal process to discuss and challenge decisions on commercial potential, including assessments undergoing a second level of review.

SUMMARY OF UNIVERSITIES' RESPONSES

One university indicated that having better processes to discuss and challenge decisions is of value. This university stated it will formalize its process of discussing and challenging decisions, and will improve documentation. Another university stated that it will consider a formal secondary review of all disclosures with respect to staffing, workload and timeline considerations. The third university stated it would continue with its current practice of taking up to one year engaging market participants to determine whether there is a market for the technology.

RECOMMENDATION 11

To help ensure commercialization assessments are completed within a reasonable timeframe to avoid delays in patent filings, university technology transfer offices should:

- establish time frames to complete assessments based on technology type or complexity of invention; and
- formally track and review how long it takes to complete assessments, and address any delays identified.

SUMMARY OF UNIVERSITIES' RESPONSES

All universities generally supported the recommendation and have implemented internal time frames for the completion of commercialization assessments. Two indicated they will establish formal tracking mechanisms to determine compliance with established timelines.

Two universities indicated there may be reasons to delay a patent filing. These can include securing further research data to support broader and more defensible claims, and prudently managing the timeline to patent to defer cost escalation.

4.4.3 Protection of Intellectual Property

The objective of protecting intellectual property is to encourage the creation of valuable ideas and prevent them from being stolen. Protection comes in different forms depending on the nature of the intellectual property. Copyrights are used to protect original literary, musical, dramatic or artistic works; trademarks are used to protect a logo, word, slogan, symbol or design that distinguishes a product or service; and patents are used to protect inventions and new technologies such as machines, devices, materials, processes, and improvements of any of these. A patent provides inventors and those who hold rights to inventions the exclusive right, for a limited time, to prevent anyone else from making, using or selling the invention. Most jurisdictions worldwide, including Canada, operate on a first-to-file patent system in which the first inventor to file a patent application has priority over others wishing to file for the same invention.

Only after a patent has expired may anyone other than the patent holder freely make, use or sell the invention. In Canada, a patent is granted for a maximum period of 20 years after the application date. Rights offered by a Canadian patent extend throughout Canada, but not to other countries. Similarly, foreign patents do not protect an invention in Canada. Therefore, inventors would need to apply for patent rights in each country separately.

Patent costs are borne initially by the technology transfer office and later by a private sector partner who buys or licenses the technology for commercial purposes. Patenting costs can be significant over the 20-year life of a patent. Fees paid to the patent office alone over those 20 years could amount to $5,600 for a regular Canadian patent and about $13,000 for a regular U.S. patent. Legal costs incurred to obtain a patent generally range in the tens of thousands of dollars but can go higher depending on the complexity of the situation and whether one is applying for a patent in more than one jurisdiction.

A U.S. patent is usually sought for most inventions because the United States is a larger market for companies that are willing to license new technologies and for users of inventions, and because it offers a provisional patent for $150 that can be converted into a Canadian patent filing. A provisional patent provides some patent protection by establishing a patent filing date, giving the inventor first right to obtain the patent, and giving the technology transfer office 12 months to initiate formal patent filings in jurisdictions of its choosing. During this time, the technology transfer office works on securing an industry partner and performing market validation to determine whether continued efforts are justified.

Our issues in this area were as follows:

- The time it takes to file the first patent varies among universities and may in some cases be too long. Delays in patent filings increase the risk of not being able to obtain a patent since a previous patent for the same technology may already exist. We reviewed the time taken to file an initial patent protection of any type, i.e. U.S. provisional patent, patent corporation treaty, or formal patent in any country, for a sample of disclosures generally made between 2011/12 and 2013/14 at the universities visited, from the date the disclosure was received. The average time ranged from 80–188 days for a U.S. provisional patent and 25–211 days for all other types of patent filings, as shown in **Figure 12**.

- Some inventions were publicized before any patent protection was in place. Publicly discussing an invention before it is patented can jeopardize one's ability to seek patent protection. Based on our review of invention disclosure forms submitted at each university visited, from 2011/12 to 2013/14, 24%–40% of inventors indicated that they had publicly disseminated information about their invention before disclosing it to the technology transfer office. Agreements between faculty and universities as well as research funding agreements for select grant programs we reviewed at the universities visited did not contain restrictions on publicly disseminating research results before considering the existence of intellectual property and arranging for its protection. Furthermore, while some faculty may become aware of these requirements through optional information sessions delivered by technology transfer offices, only one university we visited had a formal policy on its website warning about public disclosure of discoveries.

RECOMMENDATION 12

To help ensure intellectual property is properly protected, universities and/or their technology transfer offices, as applicable, should:

- ensure contracts with faculty associations and researchers include provisions to make them aware of the importance of not disclosing inventions prior to filing for patent protection; and
- file for patent protection as early as possible, where appropriate, to minimize the risk of others filing first and precluding them from obtaining a patent.

SUMMARY OF UNIVERSITIES' RESPONSES

Two universities were of the opinion that existing policies for invention disclosures were adequate. The third university indicated that the creation of intellectual property and its commercialization were not a core mandate of the university, and therefore provisions on the importance of not disclosing inventions prior to filing should not be included in faculty association agreements.

One university stated that academic freedom to publish without constraint is a core university principle. Another university stated that faculty members are best positioned to make decisions on when to publish their results. It further stated that the primary mandate is to ensure the appropriate and timely dissemination of research that has been largely publicly funded.

Figure 12: Time Taken to First Apply for a Provisional or Formal Patent,[1] for a Sample of Disclosures Received Between 2011/12 and 2013/14

Source of data: Prepared by the Office of the Auditor General of Ontario from university data

	U.S. Provisional Patent (days)		Formal Patent in Any Jurisdiction (days)	
	Average	Longest	Average	Longest
University of Toronto	188	647	211	290
McMaster University	108	385	n/a[2]	n/a[2]
University of Waterloo	84	279	25	49

1. A formal patent application includes any application other than a U.S. provisional patent application.
2. For the sample of disclosures selected for testing, all first filings were U.S. provisional patents.

AUDITOR GENERAL RESPONSE

We continue to believe that the implementation of our recommended actions would be prudent.

4.4.4 Documentation of Commercialization Processes Falls Short /Commercialization efforts lack standard documentation

None of the technology transfer offices had a proper case-management system to document key decisions or actions taken on each invention disclosed to them. Failing to document the full nature of commercialization efforts in a consistent and standardized manner poses the risk that transferring knowledge among personnel will be inefficient and unreliable, particularly when there is a change in management or staff turnover. Outgoing staff may not be available to share knowledge, and specific details could be lost or forgotten with the departure of staff who spent years working on individual projects.

We reviewed a sample of disclosures accepted for commercialization at each technology transfer office between the 2008/09 and the 2014/15 fiscal years and found a number of factors relating to documentation that made it difficult to assess the sufficiency and scope of commercialization efforts:

- Key decisions and actions were not documented on a summary sheet.
- There was no requirement for technology transfer office staff to document any of the wide variety of commercialization activities, such as holding meetings or having phone discussions with potential licensees.
- There was no checklist indicating the full suite of commercialization activities to be undertaken.
- Technology transfer offices found it challenging to gather all relevant data relating to each disclosure that would show the extent of commercialization efforts. For example, their information systems captured hundreds of emails relating to the management of any given invention; it was difficult for staff to review and single out only those that would provide a cohesive picture of their efforts. As a result, without the presence of commercialization managers to explain what actions they had taken to date on the disclosures assigned to them, the electronic files alone could not depict the full scope of commercialization efforts related to each disclosure.

We also inquired into the nature of oversight performed by technology transfer office management. There was no evidence that management used formal reports to assess efforts to facilitate commercialization. Rather, management told us they held informal meetings with staff to discuss problems or issues in the commercialization process, but these were not documented.

RECOMMENDATION 13

To permit efficient management review of commercialization decisions and efforts and to help facilitate knowledge transfer among personnel in case of staff turnover, universities should:

- develop case management documentation guidelines; and
- ensure that commercialization decisions and actions are clearly and consistently documented in accordance with the guidelines to be developed.

SUMMARY OF UNIVERSITIES' RESPONSES

All universities were in agreement with this recommendation.

4.4.5 Managing Intellectual Property Projects

No Formal Guidelines to Manage Costs Incurred to Commercialize Intellectual Property

None of the offices we visited have written policies or guidelines on managing costs. This increases the risk that commercialization efforts and costs could be incurred on projects with limited potential. Technology transfer office expenditures are primarily salaries and benefits (60% to 70%), patent costs and legal costs (20% to 30%), and other expenditures (5% to 10%). One technology transfer office informed us that it has an informal guideline of generally not exceeding $50,000 to $60,000 in patent costs without a potential licensee being identified and engaged in discussions. We reviewed the costs incurred for all disclosures made to this office since 2006 and identified nine disclosures that had incurred costs in excess of $60,000 without generating any income. Of these, five were still not licensed or optioned at the time of our audit. The other two offices did not have a policy on the maximum costs permitted by project and were not tracking costs accumulated per project.

Improvements Needed in Revenue Collection

We identified a number of concerns with regard to revenue collection at the technology transfer offices we visited, including issues with timely billing and collection of amounts owing, and lack of verification of the amounts paid. For the three universities visited, we identified all revenue-generating agreements in place with regards to intellectual property, and tested a sample of revenue received in the past three years. Specifically, we noted the following:

- Some amounts owing were not collected on a timely basis. Overall, 69% of licensing fees due were billed late, and 62% of licensing fees and 23% of royalties were received late. These were typically one-time licence fees or annual minimum payments due on predetermined dates. Technology transfer office staff told us there were various reasons for the delays. Sometimes companies were having internal difficulties. In other cases the problem rested with the universities. For example, two universities informed us they did not have a system in place to alert them when payments were due. One university has since corrected the problem by implementing a receivable reminder system.
- At one university, we saw a case where a 75,000 euro payment due June 15, 2010 was not billed until November 2011. The payment was collected in March 2012. In another example, the same university, as a shareholder in a start-up company, did not receive a $275,000 dividend that was declared in October 2011 until November 2012. The university did not provide us with a reason.
- Two universities did not always receive adequate documentation to support the royalties remitted to them. Contracts for royalty fees normally required the licensee to submit reports, often certified by an officer of the company, to support the sales generated or the quantity of items sold in that period. Of the royalty fees we tested, supporting documentation to verify the amount remitted was not provided in 13% of the cases sampled at one university and in 43% of the cases sampled at another. At the third university, revenue reports were submitted for all cases sampled, but were not always certified by an officer of the company as required. Where supporting documents were received, we generally found little or no evidence of review.
- Although many agreements allowed technology transfer offices to request an audit when royalties depended on the amount of sales generated or units sold, in all of the tested cases the offices did not request audits. The universities told us that this was usually because the amounts received were too small to justify the cost of an audit. However, none of the universities visited had criteria on when to ask for an audit report. According to the contracts we reviewed, the technology transfer office would typically bear the cost of the audits unless they showed an error over a certain percentage to the detriment of the university.

- Overall, approximately 30% of licensing agreements included a provision for interest charges on late fees. However, for the sample tested, interest charges were never applied.

RECOMMENDATION 14

To manage costs incurred in the effort to commercialize intellectual property, university technology transfer offices should implement formal policies and guidelines regarding cost management, and track costs incurred by type (e.g. legal costs, patent fees, and marketing) for each disclosure.

SUMMARY OF UNIVERSITIES' RESPONSES

All three universities were generally in agreement with the recommendation. One university said it would consider the need for formal policies and guidelines regarding cost management, and another university said it will develop general guidelines to ensure appropriate cost management practices.

RECOMMENDATION 15

To help ensure the timely and accurate collection of revenue owing, all universities should:

- ensure they have an accurate and up-to-date tracking payment schedule that includes due dates, so that universities can bill one-time payments in advance and remind licensees to submit royalty payments on time;
- obtain sales and revenue reports from licensees to support the amount of royalties remitted;
- develop criteria to help assess when it is worthwhile to ask for an audit report (for example, when royalty payments are dependent on sales generated); and
- enforce the interest penalties stipulated in contracts to encourage licensees to submit revenue payments on time.

SUMMARY OF UNIVERSITIES' RESPONSES

All universities were in agreement with this recommendation. The two universities to which most of the findings in this section related noted that they are addressing the concerns.

Appendix 1—Ministry of Research and Innovation Funding by Program, 2010/11–2014/15

Prepared by the Office of the Auditor General of Ontario using Public Accounts and Ministry of Research and Innovation program information

	Applicable to University Research	2010/11 ($ 000)	2011/12 ($ 000)	2012/13 ($ 000)	2013/14 ($ 000)	2014/15 ($ 000)	Total ($ 000)
Research Funding Programs							
Ontario Institute for Cancer Research		81,871	82,092	89,800	77,000	77,000	**407,763**
Research Infrastructure	✓	67,270	68,524	86,149	80,210	88,426	**390,579**
Research Excellence	✓	61,854	70,702	112,000	65,032	74,786	**384,374**
SickKids Research and Learning Tower		–	45,000	30,000	–	–	**75,000**
Early Researcher Awards	✓	12,352	10,157	3,870	2,713	9,763	**38,855**
Perimeter Institute		–	5,000	5,000	10,000	10,000	**30,000**
Grants in support of research and innovation	✓	4,876	641	–	11,850	7,970	**25,337**
Minor capital investments	✓	–	1,459	15,559	290	197	**17,505**
Ontario Brain Institute		849	6,590	7,560	–	–	**14,999**
International Collaborations		–	854	1,300	2,331	2,866	**7,351**
Neurotrauma Program		–	–	–	–	4,680	**4,680**
Ontario Post Doctoral Fellowships	✓	2,264	–	430	65	121	**2,880**
University of Windsor Institute for Diagnostic Imaging Research	✓	–	1,341	1,341	–	–	**2,682**
Premier's Discovery Awards	✓	1,600	75	–	150	250	**2,075**
Renewable Energy Project	✓	–	300	300	300	–	**900**
Premier's Catalyst Awards		580	300	–	20	–	**900**
Subtotal		**233,516**	**293,035**	**353,309**	**249,961**	**276,059**	**1,405,880**
Programs to Facilitate Commercialization							
Industry-Academic Collaboration Programs (Ontario Centres of Excellence)	✓	–	34,296	31,564	31,002	32,400	**129,262**
Business Ecosystem Support Fund		11,807	14,673	15,534	17,978	2,019	**62,011**
Innovation Demonstration Fund		15,578	14,707	11,439	2,652	9,163	**53,539**
Regional Innovation Centres	✓	–	–	24,836	5,812	6,366	**37,014**
Business Acceleration Program (MaRS)		–	8,771	10,835	8,420	8,598	**36,624**
Youth Jobs Strategy – Youth Innovation Fund	✓	–	–	–	15,000	15,000	**30,000**
Next Generation of Jobs Fund – Biopharmaceutical Investment Program		6,836	7,771	1,964	1,907	–	**18,478**
Centre for Research and Innovation in the Bio-economy		2,500	3,000	4,000	3,500	3,000	**16,000**

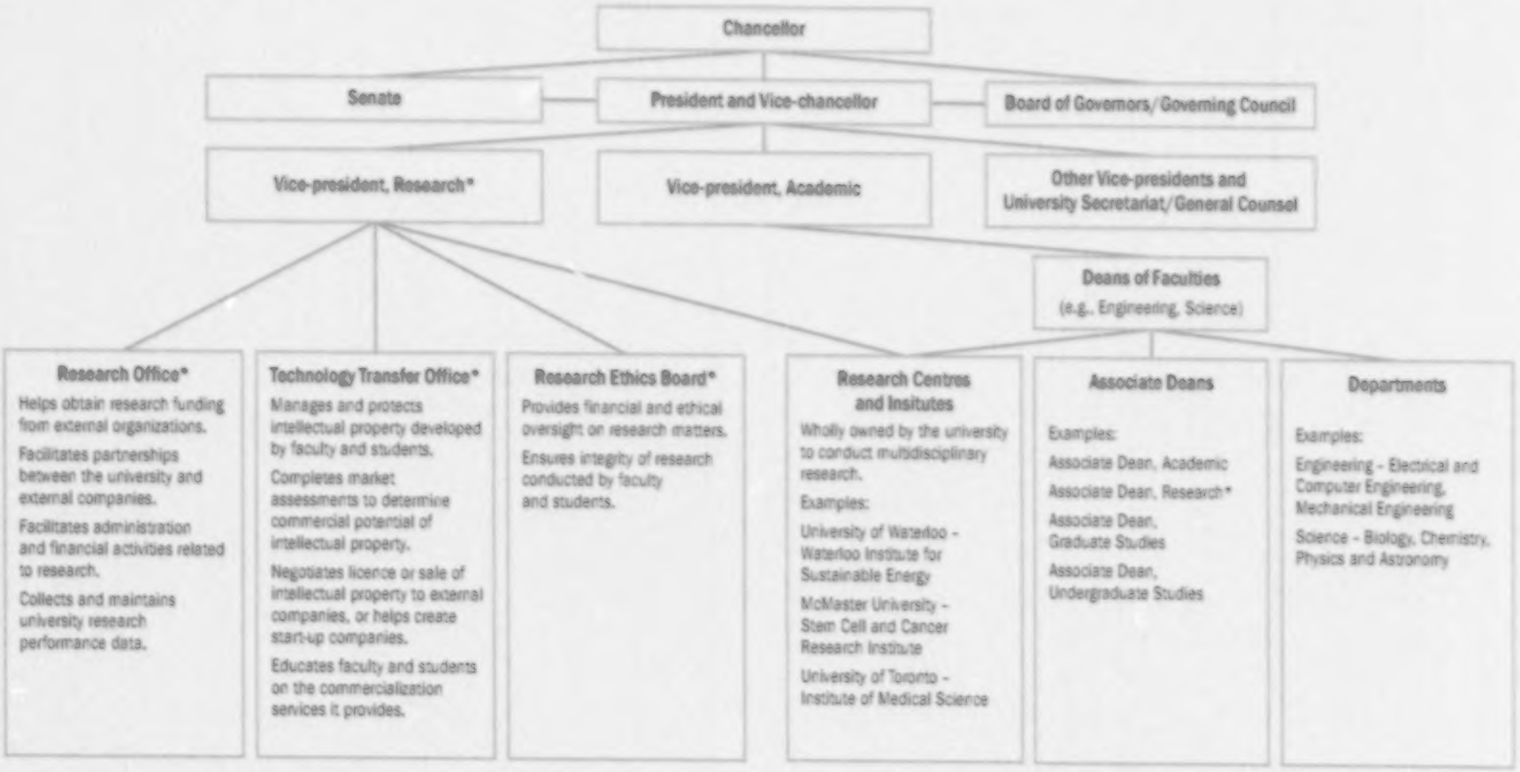
	Applicable to University Research	2010/11 ($ 000)	2011/12 ($ 000)	2012/13 ($ 000)	2013/14 ($ 000)	2014/15 ($ 000)	Total ($ 000)
Ontario Life Sciences Commercialization Strategy		6,040	5,745	718	1,137	1,483	**15,123**
Next Generation Baycrest Initiative		–	–	4,700	4,915	4,485	**14,100**
MaRS core funding	✓	–	–	–	5,000	5,000	**10,000**
Sector Innovation Centres		–	–	–	346	5,325	**5,671**
Small Business Enterprise Centres		–	–	–	–	4,215	**4,215**
Subtotal		**42,762**	**68,953**	**106,580**	**97,669**	**97,063**	**432,027**
Risk Capital							
Ontario Emerging Technologies Fund		23,067	27,436	14,500	14,997	8,000	**88,000**
Northleaf Venture Catalyst Fund		–	–	30,000	20,000	–	**5[illegible],000**
Investment Accelerator Fund		9,667	8,117	8,375	6,522	1,553	**34,234**
Life Sciences Seed Venture Capital Fund		–	–	–	–	10,000	**10,000**
Youth Investment Accelerator Fund		–	–	–	5,000	2,000	**7,000**
Angel Network Program		–	506	612	663	688	**2,469**
Subtotal		**32,734**	**36,059**	**53,487**	**47,182**	**22,241**	**191,703**
Tax Credits and Initiatives							
Ontario Innovation Tax Credit [R]		–	–	249,834	223,199	172,393	**645,426**
Ontario Business-Research Institute Tax Credit [R]	✓	–	–	13,111	12,262	20,245	**45,618**
Ontario Research and Development Tax Credit [NR]		n/a	n/a	n/a	n/a	n/a	**0**
Ontario Tax Exemption for Commercialization	✓	–	–	–	–	–	**0**
Subtotal		–	–	**262,945**	**235,461**	**192,638**	**691,044**
Total		**309,111**	**418,047**	**775,331**	**630,273**	**587,991**	**2,720,753**

[R] Refundable tax credit.

[NR] Non-refundable tax credit. Tax credit is deducted at time of calculating taxes owing, therefore no disbursement by province is necessary. The Ministry of Finance has estimated the amount of taxes forgone for calendar years 2010–2014 to be $865 million.

Appendix 2—Governance Structure of a Typical University

Prepared by the Office of the Auditor General of Ontario


Chancellor
Senate
President and Vice-chancellor
Board of Governors/Governing Council
Vice-president, Research*
Vice-president, Academic
Other Vice-presidents and University Secretariat/General Counsel
Deans of Faculties (e.g., Engineering, Science)
Research Office*
Helps obtain research funding from external organizations.
Facilitates partnerships between the university and external companies.
Facilitates administration and financial activities related to research.
Collects and maintains university research performance data.
Technology Transfer Office*
Manages and protects intellectual property developed by faculty and students.
Completes market assessments to determine commercial potential of intellectual property.
Negotiates licence or sale of intellectual property to external companies, or helps create start-up companies.
Educates faculty and students on the commercialization services it provides.
Research Ethics Board*
Provides financial and ethical oversight on research matters.
Ensures integrity of research conducted by faculty and students.
Research Centres and Insitutes
Wholly owned by the university to conduct multidisciplinary research.
Examples:
University of Waterloo - Waterloo Institute for Sustainable Energy
McMaster University - Stem Cell and Cancer Research Institute
University of Toronto - Institute of Medical Science
Associate Deans
Examples:
Associate Dean, Academic
Associate Dean, Research*
Associate Dean, Graduate Studies
Associate Dean, Undergraduate Studies
Departments
Examples:
Engineering - Electrical and Computer Engineering, Mechanical Engineering
Science - Biology, Chemistry, Physics and Astronomy

— Reporting relationship

* Member of the Research Council/Advisory Board
The council/advisory board provides guidance on research activities and the university's research direction; develops partnerships with other institutions; addresses all aspects of research across campuses and related hospitals including commercialization matters as well as industry relations; acts as liaison on research matters with federal and provincial governments; and provides guidance on the university's strategic international research activity and helps determine effective performance indicators for the university's research.

Appendix 3—University Mandates for Overall Research Activity and Technology Transfer Office, for the Universities Visited

Source of data: Universities' website and strategic plans.

Mandate	University of Toronto	McMaster University	University of Waterloo
University Research Activity	To advance research capacity and productivity by attracting and retaining superb talent; by building strategic research programs and linkages of research, education and training; and by leveraging strategic partnerships and resources for the benefit of Canada and the world.	To achieve the next level of research results and reputation by building on existing and emerging areas of excellence; and to attract and retain high-quality faculty and students by making discovery the centre of the learning experience.	Overall, to be recognized as one of the top innovation universities in the world. Specifically, to increase the worldwide impact and recognition of the university's research.
Technology Transfer Office	To help build successful partnerships between industry, business, government, and the University research community and manage the university's portfolio of intellectual property – turning ideas and innovation into products, services, companies and jobs.	To help researchers move their research into society. Specifically, through working with industry, obtaining funding for collaborative research with industry and commercialization funding, protecting work with patents, trade-marks and copyrights, commercializing work, and connecting to support networks.	To promote the commercialization of leading edge intellectual property opportunities by supporting entrepreneurial activities leading to startup company creation, securing licensing partnerships with existing companies, and promoting ongoing research partnerships with commercialization partners; and to support entrepreneurial minded faculty and students in creating startup companies.

Appendix 4—Federal Research Funding Programs, 2013/14

Source of data: Compiled by the Office of the Auditor General of Ontario from federal funding websites and the Council of Ontario Universities' 2013-14 Financial Report of Ontario Universities

		Funding Amount to Ontario Universities	
Name	Role	($ 000)	(%)
Canadian Institute for Health Research* (CIHR)	Mandate is to excel in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products, and a strengthened health-care system. CIHR's 13 institutes provide funding in four research areas: biomedical; clinical; health systems services; and social, cultural, environmental and population health.	346,879	26
Natural Science and Engineering Research Council* (NSERC)	Supports university students in advanced studies, promotes and supports discovery research, and fosters innovation by encouraging Canadian companies to participate and invest in post-secondary research projects.	288,873	22
Canada Foundation for Innovation (CFI)	Provides funding to develop state-of-the-art facilities and equipment in universities, colleges, research hospitals and non-profit research institutions.	208,720	16
Indirect Costs of University Research Program	Covered a portion of the indirect costs associated with research funded by NSERC, SSHRC, and CIHR. These are costs borne by the institution that cannot be attributed to a particular project, such as costs for energy or maintaining IT infrastructure, meeting regulatory requirements or managing intellectual property.	125,141	10
Social Sciences and Humanities Research Council* (SSHRC)	Promotes and supports post-secondary-based research and research training in the humanities and social sciences.	109,140	8
Canada Research Chairs/Canada Excellence Research Chairs (CERC)	Supports universities in efforts to build Canada's reputation as a global leader in research and innovation. It awards researchers and their teams up to $10 million over seven years to establish ambitious research programs at Canadian universities. Awards are made in priority areas identified in the federal government's science and technology strategy. Priority areas as of December 2014 are: environment and agriculture; health and life sciences; natural resources and energy; information and communications technologies; and advanced manufacturing.	102,018	8
Other		135,482	10
Total		**1,316,253**	**100**

* These three agencies are often referred to collectively as the Tri-Council Agencies or the Tri-Agency.

Appendix 5—Provincial Funding for University Research by Ministry and Agency, 2009/10–2013/14

Source of data: Council of Ontario Universities' Financial Reports of Ontario Universities

	2009/10 ($ 000)	2010/11 ($ 000)	2011/12 ($ 000)	2012/13 ($ 000)	2013/14 ($ 000)	5-Yr Total ($ 000)	(%)
Ministries							
Ministry of Research and Innovation (MRI)	160,015	184,820	139,190	217,676	136,394	**838,095**	43
Ministry of Agriculture, Food and Rural Affairs	48,341	49,502	53,060	52,587	48,044	**251,534**	13
Ministry of Health and Long-Term Care (MOHLTC)	52,199	44,693	50,254	47,086	51,556	**245,788**	13
Ministry of Training, Colleges and Universities (MTCU)	30,248	28,379	28,811	29,148	33,167	**149,753**	8
Ministry of Economic Development, Employment and Infrastructure	2,270	1,518	42,333	53,634	19,072	**118,827**	6
Ministry of Education	2,547	2,876	4,690	2,761	1,203	**14,077**	1
Ministry of the Environment and Climate Change	2,709	2,847	1,929	2,267	3,098	**12,850**	1
Ministry of Natural Resources and Forestry	2,473	1,518	1,435	1,231	1,279	**7,936**	0
Ministry of Transportation	1,129	2,135	319	943	1,627	**6,153**	0
Ministry of Children and Youth Services	1,232	649	465	653	226	**3,225**	0
Ministry of Community and Social Services	514	1,742	557	88	101	**3,002**	0
Ministry of Municipal Affairs and Housing	0	0	1,000	2,000	0	**3,000**	0
Ministry of Northern Development and Mines (MNDM)	2	1,024	1,254	0	0	**2,280**	0
Ministry of Finance	0	0	0	904	1,070	**1,974**	0
Ministry of Labour (MOL)	0	0	0	800	1,083	**1,883**	0
Ministry of Citizenship and Immigration	0	0	750	280	0	**1,030**	0
Ministry of Tourism, Culture and Sport	0	187	38	0	393	**618**	0
Ministry of Energy	0	0	0	0	92	**92**	0
Subtotal	**303,679**	**321,890**	**326,085**	**412,058**	**298,405**	**1,662,117**	**85**
Other Government Agencies or Organizations Delivering Government Services							
Ontario Institute for Cancer Research (MOHLTC)	25,233	24,899	28,007	29,761	0	**107,900**	6
Ontario Centres of Excellence (MRI)	15,623	10,841	13,339	10,649	0	**50,452**	3
Cancer Care Ontario (MOHLTC)	3,813	2,250	3,730	4,347	5,105	**19,245**	1
Workplace Safety and Insurance Board (MOL)	2,267	3,287	3,461	1,724	583	**11,322**	1
Northern Ontario Heritage Fund Corporation (MNDM)	1,938	1,429	2,067	2,509	1,624	**9,567**	0
Ontario Problem Gambling Research Centre* (MOHLTC)	644	519	987	1,241	0	**3,391**	0
Higher Education Quality Council of Ontario (MTCU)	210	362	267	292	0	**1,131**	0
Office of the Premier	675	0	75	0	0	**750**	0
Public Health Ontario (MOHLTC)	0	689	0	0	15	**704**	0
Other grants not listed above	8,132	8,758	11,150	17,735	36,865	**82,640**	4
Subtotal	**58,535**	**53,034**	**63,083**	**68,258**	**44,192**	**287,102**	**15**
Total	**362,214**	**374,924**	**389,168**	**480,316**	**342,597**	**1,949,219**	**100**

* Renamed Gambling Research Exchange Ontario in April 2015.

Appendix 6—Glossary of Terms

Prepared by the Office of the Auditor General of Ontario

Accelerators—Provide office space and management training to start-up companies dedicated to developing and commercializing technology in exchange for equity in a technology. Services include mentorship, access to equipment for prototyping and demonstrations, peer networking, and connecting to investor and alumni networks and access to financing. Time in the space is typically limited to a 3–4 month period and provides start-ups with a small cash investment.

Angel Investor—An individual who invests private capital in a small or newly established enterprise.

Association of University Technology Managers (AUTM)—A U.S. based not-for-profit association of technology managers and business executives who manage intellectual property. The AUTM surveys universities annually on a number of performance measures.

Centres of Excellence—Independent not-for-profit organizations that support and invest in early-stage projects where the likelihood of commercialization is high, as well as provide training and development of innovators and entrepreneurs. There are 49 federal Centres of Excellence and 7 provincial Centres of Excellence in Ontario.

Citation—Acknowledges a source used in a formal academic paper.

Commercialization—The process of taking a discovery or invention to the marketplace.

Disclosure—Communication of key information to a technology transfer office regarding a discovery or new technology for the purpose of allowing the office to make an informed decision on how best to proceed.

Encumbered Disclosure—A disclosure owned by one party (the inventor or university) on which a second party (industry sponsor who provided funding or in-kind contributions) reserves the right to claim ownership.

Entrepreneurship—The capacity and willingness to develop, organize and manage a business venture along with any of its risks in order to make a profit.

First to File—A patent system in which the first person to file a patent application for a specific invention is entitled to the patent. In Canada and in most other countries, the first person to file has priority over other people claiming rights for the same invention.

Highly Qualified Personnel (HQPs)—Individuals with university degrees.

Incubators—Similar to accelerators except that start-ups can stay in the space for a much longer period of time and incubators take a much larger amount of equity in exchange for their services.

Innovation—An invention, new technology or new process that is not currently available in the marketplace; an improvement to an existing technology/process that significantly improves functionality, cost or performance; or a significant modification to the application of existing technologies/processes that are applied in a setting or condition for which current applications are not possible or feasible.

Innovation Ecosystem—The participants and resources that transform knowledge into products, processes and services that lead to economic growth and development to improve the standard of living.

Innovation Park—A community of innovators and specialists where academia, industry, government and not-for-profits work together to cultivate ideas, identify and transform important technological discoveries, and propel innovations into the marketplace.

Intellectual Property—Creations of the mind such as inventions; literary and artistic works; designs; and symbols, names, and images used in commerce. They are protected by law through patents, copyrights or trademarks.

Intellectual Property Disclosure Form—A formal document used to declare a new technology and subsequently analyze it for commercial or public value.

Intellectual Property Rights—Ownership of intellectual property and associated rights, such as future income sharing, and royalty-free use.

Licence Agreement—Grants the licensee the right to make, use and sell the specific technology described in the licence. This right can be exclusive (i.e., no one else including the inventor has this right), or non-exclusive (i.e., others may be granted similar rights; in this scenario, the lessee's rights may be limited to a defined geographic area, or for a specific field of use or application).

Licensing an Invention—Allowing a business or individual to manufacture and sell an invention, usually in exchange for royalties.

Licensing Fee—An amount of money that is paid to an owner of intellectual property for the right to manufacture, use or sell the intellectual property. This is usually a fixed amount to be paid at a fixed time as stipulated in a licensing agreement.

Milestone Payment—An interim payment, which is linked to delivering a service or commodity, such that if the service is not delivered, the agreement can be terminated.

Non-disclosure Agreement—A legal contract to protect information considered proprietary or confidential. The parties agree not to disclose information covered by the agreement.

Patent—A government grant giving the inventor the right to exclude others from making, using or selling an invention, from the day on which the patent application is filed with the patent office to a maximum of 20 years. To be granted this exclusive right, the invention must be new, non-obvious and useful with commercial applicability.

Patent Cooperation Treaty (PCT)—An international treaty for standardized filing procedures for foreign patents. The treaty allows for filing patents in a large number of jurisdictions.

Prior Art Status—Anything published before the filing date of a patent that describes the same or similar invention, and therefore could call into question a patent application's claim of originality.

Proof of Concept—The stage during the development of a product when it is established that the product will function as intended.

Prototype—An original or early model of something from which other forms are copied or developed. It is developed to test the feasibility of a concept or hypothesis within a systematic investigation or search.

Provisional Patent Application—A patent application in the United States that preserves the rights of a patent applicant for one year during which time a decision must be made on whether to file a regular patent application. A provisional patent application is not examined but serves as the priority date for applications filed later.

Public Disclosure—Communication of information through verbal presentations, abstracts, posters and papers, in which a person is not obligated to keep the information confidential and may replicate the innovation.

Regional Innovation Centres (RICs)—18 not-for-profit corporations located in Ontario that support technologically innovative firms with high growth potential with appropriate business acceleration services that focus on educational programming, advisory and mentorship programming and access to capital programs.

Research Agreement—A contract to provide funding for a research project. It contains terms and conditions governing the conduct of the project, as well as obligations of the recipient and funder. The agreement also sets out the roles and responsibilities of the parties involved.

Research Park—A property-based venture for research and commercialization that creates partnerships with universities and research institutions, encourages the growth of new companies, translates technology, and drives technology-led economic development.

Research Publications—Typically, academic journals in which scholars publish research that brings discoveries or ideas to the public domain.

Risk Capital—Funds made available to start-up companies and small businesses with growth potential.

Royalty—A percentage of sales or profit paid by the lessee to the owner of intellectual property under a licensing arrangement.

Seed Money—Money allocated to initiate a project.

Start-up/Spinoff Company—A company created by inventors to exploit their intellectual property. This method of commercialization holds the highest risk but can lead to the highest potential rewards for inventors.

Technology transfer—The process of transferring scientific findings from one organization to another for the purpose of further development and commercialization.

Technology Transfer Office—An office at a university that facilitates commercialization by bringing together the institution and industry to transfer research discoveries to the marketplace.

Appendix 7—Recommendations Applicable to Universities

Prepared by the Office of the Auditor General of Ontario

Recommendations 1–6 are applicable to the Ministry of Research and Innovation.

Recommendation 7:

In conjunction with government sponsors, universities should develop socio-economic performance measures to better communicate the outcomes of their research and commercialization efforts.

Recommendation 8:

Universities should review their research reporting requirements on performance measures, and identify opportunities to report more detailed information in the annual research report and in management reports going to senior management.

Recommendation 9:

To ensure that all intellectual property created with university resources is disclosed, universities should:

- develop guidelines to help faculties assess university resources in the creation of intellectual property and to require such assessments be documented;
- clearly communicate invention disclosure requirements during technology transfer office presentations to staff and students;
- require all faculties to use only disclosures made directly to the technology transfer office for performance review purposes; and
- use research grant status reports sent to research funders to anticipate and track completeness of disclosures.

Recommendation 10:

In the absence of objective criteria to assess the commercial potential of disclosures, university technology transfer offices should develop a formal process to discuss and challenge decisions on commercial potential, including assessments undergoing a second level of review.

Recommendation 11:

To help ensure commercialization assessments are completed within a reasonable timeframe to avoid delays in patent filings, university technology transfer offices should:

- establish time frames to complete assessments based on technology type or complexity of invention; and
- formally track and review how long it takes to complete assessments, and address any delays identified.

Recommendation 12:

To help ensure intellectual property is properly protected, universities and/or their technology transfer offices, as applicable, should:

- ensure contracts with faculty associations and researchers include provisions to make them aware of the importance of not disclosing inventions prior to filing for patent protection; and
- file for patent protection as early as possible, where appropriate, to minimize the risk of others filing first and precluding them from obtaining a patent.

Recommendation 13:

To permit efficient management review of commercialization decisions and efforts and to help facilitate knowledge transfer among personnel in case of staff turnover, universities should:

- develop case management documentation guidelines; and
- ensure that commercialization decisions and actions are clearly and consistently documented in accordance with the guidelines to be developed.

Recommendation 14:

To manage costs incurred in the effort to commercialize intellectual property, university technology transfer offices should implement formal policies and guidelines regarding cost management, and track costs incurred by type (e.g. legal costs, patent fees, and marketing) for each disclosure.

Recommendation 15:

To help ensure the timely and accurate collection of revenue owing, all universities should:

- ensure they have an accurate and up-to-date tracking payment schedule that includes due dates, so that universities can bill one-time payments in advance and remind licensees to submit royalty payments on time;
- obtain sales and revenue reports from licensees to support the amount of royalties remitted;
- develop criteria to help assess when it is worthwhile to ask for an audit report (for example, when royalty payments are dependent on sales generated); and
- enforce the interest penalties stipulated in contracts to encourage licensees to submit revenue payments on time.

Chapter 4

Follow-up on 2013 Value-for-money Audits

It is our practice to make specific recommendations in our value-for-money audit reports and ask ministries, agencies of the Crown and organizations in the broader public sector to provide a written response to each recommendation, which we include when we publish these audit reports in Chapter 3 of our Annual Report. Two years after we publish the recommendations and related responses, we follow up on the status of actions taken by management with respect to our recommendations.

Chapter 4 provides some background on the value-for-money audits reported on in Chapter 3 of our *2013 Annual Report* and describes the status of action that has been taken to address our recommendations since that time as reported by management.

Where hearings on our audits are held and reports issued by the Standing Committee on Public Accounts (Committee), we include a summary of the status of each action from the Committee's recommendations in Chapter 7. Our objective in providing this additional reporting is to help ensure that action is being taken by audited entities to address the issues that the Committee raised during the hearing and in any subsequent report to the Legislature. Chapter 7 also describes the Committee's activities more fully.

As noted in **Figure 1**, we are able to report that progress has been made toward implementing 76% of the action items in recommendations we made in 2013, although only 29% of them have been fully implemented. Eight action items (5%) in seven recommendations will not be implemented for the reasons noted in the applicable section.

Our follow-up work consists primarily of inquiries and discussions with management and review of selected supporting documentation. In a few cases, the organization's internal auditors also assisted with this work. This is not an audit, and accordingly, we cannot provide a high level of assurance that the corrective actions described have been implemented effectively. The corrective actions taken or planned will be more fully examined and reported on in future audits and may impact our assessment of when future audits should be considered.

Figure 1: Overall Status of Implementation of Recommendations from our *2013 Annual Repor*

Prepared by the Office of the Auditor General of Ontario

			Status of Actions Recommended			
Report Section	# of Recs	# of Actions Recommended	Fully Implemented	In Process of Being Implemented	Little or No Progress	Will Not Be Implemented
4.01 Autism Services and Supports for Children	8	19	3	13	3	–
4.02 Health Human Resources	4	10	–	9	1	–
4.03 Healthy Schools Strategy	4	10	–	1.75[a]	8.25[a]	–
4.04 Land Ambulance Services	5	20	5	12	3	–
4.05 Ontario Power Generation Human Resources	6	14	8	6	–	–
4.06 Private Schools	7	22	11.5[b]	3	3	4.5[b]
4.07 Provincial Parks	8	9	–	8	1	–
4.08 Rehabilitation Services at Hospitals	5	18	7	7	3	1
4.09 ServiceOntario	6	21	9	6	3	3
4.10 Violence Against Women	8	15	2	9	4	–
Total	**61**	**158**	**45.5**	**74.75**	**29.25**	**8.5**
%	**–**	**100**	**29**	**47**	**19**	**5**

a. The status of the actions taken by the Ministry and three school boards audited in 2013 varied.

b. The status varied for credit-granting and non-credit granting private schools.

Chapter 4

Ministry of Children and Youth Services

Section 4.01 Autism Services and Supports for Children

Follow-up to VFM Section 3.01, *2013 Annual Report*

RECOMMENDATION STATUS OVERVIEW

	# of Actions Recommended	Status of Actions Recommended			
		Fully Implemented	**In Process of Being Implemented**	**Little or No Progress**	**Will Not Be Implemented**
Recommendation 1	5	1	4		
Recommendation 2	1		1		
Recommendation 3	1			1	
Recommendation 4	3	2	1		
Recommendation 5	1		1		
Recommendation 6	3		3		
Recommendation 7	2		1	1	
Recommendation 8	3		2	1	
Total	**19**	**3**	**13**	**3**	**0**
%	**100**	**16**	**68**	**16**	**0**

Background

The prevalence of autism spectrum disorder (commonly known as autism) has been increasing. In Ontario, children diagnosed with autism may access general services and supports including speech therapy, occupational therapy and mental health services, funded by the Ministry of Education and the Ministry of Health and Long-Term Care, among others. Our 2013 audit focused primarily on services and supports funded by the Ministry of Children and Youth Services (Ministry) and provided exclusively to children with autism.

The Ministry funds two types of autism intervention services or therapies—Intensive Behaviour Intervention (IBI) and Applied Behaviour Analysis (ABA)-based services. These services and other supports exclusively for children with autism are delivered through approximately 90 community- or hospital-based agencies that are usually not-for-profit organizations. In 2014/15, transfer payments for autism services and supports totalled $188 million ($182 million in 2012/13).

In December 2012, the Ministry convened an expert panel to give it advice on up-to-date research on effective clinical practice and autism programs, and it introduced a mechanism through which families can request an independent review of service provider decisions about their child's eligibility for, or discharge from, IBI services.

In our *2013 Annual Report*, we noted the following key observations:

- Over the decade ending in 2013, the Ministry had quadrupled autism funding. Despite this, there were more children with autism waiting for government-funded services than there were children receiving them.
- We estimated that children with autism were diagnosed in Ontario at a median age of a little over 3 years, later than the 18-to-24-month screening period endorsed by the Canadian Pediatric Society for children with risk factors.
- Although scientific research showed that children with milder forms of autism had better outcomes with IBI, the program was available only to children assessed with more severe autism at the time of our 2013 audit.
- Research has shown that children who started IBI before age 4 had better outcomes than those who started later. However, due to long wait lists, children in Ontario did not typically start IBI until almost age 7. The median wait time for IBI services in the three regions we visited was almost four years.
- It was up to the lead service agency to decide how to allocate ministry funding between two IBI service-delivery options: direct service, where the child receives service directly from a service provider at no cost, or direct funding, where the family gets funds from the lead service agency to purchase private services. Wait times for IBI services could differ significantly between the two options and among regions. In one region in 2012, the average wait for IBI services under the direct funding option was five months longer than the average wait under the direct service option. In another region, the situation was reversed.
- Of the children discharged from IBI services in 2012/13 province-wide, those under the direct funding option received on average almost one year more of services than those under the direct service option (35 months versus 25 months). In general, children receiving IBI under the direct service option received fewer hours of therapy than they were approved for. One of the key reasons that this arises is because missed appointments cannot be rescheduled.
- From 2006 to 2013, the Ministry had reimbursed up to 60 people for a total of $21 million for the ongoing cost of IBI outside of the regular service program. Per person, this represents more than twice the amount that a child in the regular service system typically received. This practice of special treatment continued while others were on a wait list for services.
- ABA-based services allow a child to work on only one goal at a time, and therefore might not be sufficient for children who have many behavioural problems or goals to achieve. After achieving one goal, the child returns to the end of the wait list for the next available spot.
- More work was necessary to ensure that ABA methods were being effectively used in schools to educate children with autism.
- The Ministry had not assessed whether resources were being distributed equitably across the province.
- Ontario did not have a provincial autism strategy. However, in May 2013, the provincial legislature passed a motion creating a select committee to work on a comprehensive developmental services strategy that was planned to include autism.

Status of Actions Taken on Recommendations

The Ministry provided us with information in the spring and summer of 2015 on the current status of our recommendations. According to this information, the Ministry had fully implemented our recommendations in the areas of obtaining from service providers the reasons children are discharged from the IBI program, and, in conjunction with the Ministry of Education, defining minimum training requirements for educators and facilitating access to online resource tools for teachers. The Ministry was in the process of implementing over 60% of our recommendations, mainly in the areas of ensuring that children with autism have earlier access to evidence-based supports and services, assessing whether children and youth made successful transitions to adult services, and developing performance targets and conducting program evaluations. Overall, the Ministry has either fully implemented or was in the process of implementing over 80% of our recommended actions.

However, the Ministry had made little or no progress in the following areas: verifying data submitted by service providers through site visits; modifying the IBI and ABA programs (evaluations have not yet been completed); and addressing the inequities of continuing to reimburse 38 people (over 40 people in 2013) for expenses that are outside of the regular IBI program. Regarding the latter, the Ministry reported it was still reimbursing expenses to these individuals because no transition planning work has been done as of yet with the families. The Ministry is considering options with respect to the transition work with the objective of ensuring children with autism receive an equitable level of service and support. The status of each of our recommendations is as follows.

Access to Intervention Services and Provision of Intervention Services

Intensity and Duration of Service, and Discharge Decision

Recommendation 1

To help ensure that children with autism and their families have earlier access to autism supports and services, the Ministry of Children and Youth Services (Ministry) should:

- *work with the Ministry of Health and Long-Term Care and the medical community to facilitate the identification and diagnosis of autism in children before age 3, in accordance with the original objective of the Ministry's Intensive Behaviour Intervention (IBI) program;*

  Status: In the process of being implemented by March 2016.

Details

Between September 2013 and November 2014, the Ministry held several meetings with representatives from the health sector, including the Ministry of Health and Long-Term Care, primary health care professionals and the Ontario Medical Association, to discuss ways autism might be identified earlier in children and to seek input on improving access to diagnosis and assessment. The Ministry was also told by families that access to health care professionals who diagnose autism is limited. In partnership with the Ministry of Health and Long-Term Care, the Ministry expected to launch two to five multi-disciplinary diagnostic teams in November 2015 in up to six of the province's 14 Local Health Integration Networks (LHINs) to help clinicians recognize the early signs of autism and to increase capacity to diagnose autism. These teams will be based within existing primary health care providers, including family health teams, community health centres, nurse practitioner-led clinics and Aboriginal health access centres. The Ministry expects to spend $500,000 over 12 months to increase providers' capacity to diagnose autism.

- *monitor wait times as well as wait-list data across the province for both IBI services and Applied Behaviour Analysis–based services.*

  Status: In the process of being implemented by February 2016.

Details

In April 2014, the Ministry implemented a new quarterly report that tracks wait-list and wait-time data for both IBI and ABA-based services. The Ministry's data shows that the number of children on wait lists for both services has grown since our 2013 audit. For IBI, the wait list grew from 1,748 children to 2,192 children from December 2012 to March 2015; for ABA-based services, the wait list grew from 7,986 children to 13,966 children from March 2013 to March 2015.

The Ministry reported that, as of March 2015, children waited an average of 27 months to access IBI services under the direct-service option and 29 months under the direct-funding option. We could not compare this information to what we reported in our audit in 2013 because at that time the Ministry was not tracking provincial wait times for IBI services. However, according to the wait-time information we obtained in three of the Ministry's nine regions, the median wait time for IBI services in 2012 was about 46 months. In September 2014, the Ministry engaged an external consultant to provide advice to three IBI service providers on improving operational efficiencies by following LEAN principles (a business-operation methodology aimed at creating more value for customers with minimal waste). The service providers modified their practices in January 2015 and started to measure the impact on IBI wait times. The Ministry anticipated that the providers would start seeing positive results by the summer and fall of 2015. The Ministry plans to analyze the results and consider next steps by February 2016.

In our *2013 Annual Report*, we noted that children waited an average of 2.4 months to begin ABA-based services in the 2012/13 fiscal year. As of March 2015, children had to wait 13 months on average. The Ministry received approval to increase spending on ABA-based services by $4.5 million in the fiscal year ending March 31, 2016, to reduce wait lists and wait times. The Ministry told us it expects the funding increase to allow 9,400 children to receive ABA-based services, compared to 7,601 in 2013/14.

To help improve program transparency and ensure equity of service in the best interests of the child, the Ministry should:

- *ensure that clear eligibility, continuation and discharge criteria for IBI services are developed and are applied consistently, so that children with similar needs can access a similar level of services;*

  Status: In the process of being implemented; Ministry has committed to report back to the Office of the Auditor General by July 2016.

Details

The Ministry's guidelines for IBI services have not changed. They still state that the clinical directors who oversee the provision of IBI services are responsible for making decisions on eligibility and discharge. At the time of our follow-up, the Ministry still did not mandate standard intake criteria or the assessment tools that clinicians should use to determine IBI eligibility, or standard criteria for when a child receiving IBI services should be discharged. In January 2014, the Autism Spectrum Disorder Clinical Expert Committee, comprising researchers, academics and clinicians, recommended the development of clinical criteria for decision-making regarding the progress of children in IBI. At the time of our follow-up, the Ministry was considering options for implementing the Clinical Expert Committee's recommendations regarding the IBI and ABA programs, and would be in a position to respond more fully to the Office of the Auditor General by July 2016.

- *ensure that service providers clearly specify, for every child, the reason that the child is*

discharged from the IBI program and report this information to the Ministry for analysis;
Status: Fully implemented.

Details

At the time of our 2013 audit, the Ministry tracked the following reasons for discharging a child from the IBI program: no longer needed IBI; declined services; moved out of region; transferred; deceased; reached age limit; and "other." In April 2013, the Ministry changed the list to: met goals; did not meet goals; and "other." The latter is now to be used to capture specific reasons for discharge other than those that are related to meeting goals. These reasons must be reported.

For the year ending March 31, 2015, of the approximately 700 children discharged from IBI, 61% had reached their goals (down from 74% in the prior year); 23% had not met their goals (up from 14% in the prior year); and 16% were discharged for other reasons (up from 12% in the prior year), such as the family voluntarily withdrew them from IBI, the family moved, or the child turned 18.

Service providers across the nine regions reported varying rates of children who were discharged because they had reached their service goals—from 27% to 89%. The Ministry concluded that these vast discrepancies were likely due to differences in the ways that each agency interprets whether children have met their goals. Specifically, the Ministry found that the agency that reported 89% of discharged children having reached their goals had modified the individual goals of some children over time to make the goals more attainable. Meanwhile, the agency that reported 27% of its discharged children having reached service goals had set very high clinical goals for all the children in its programs. The Ministry told us that as of April 2015, it planned to further define "met goals" to ensure service providers' practices and interpretations of the term match the intent of the program. In April 2015 the Ministry also began tracking the reasons for discharge under the two service delivery options—direct service and direct funding—so it could further monitor whether discharge trends are related to clinical decisions or to how the program is delivered.

- *review the reasons for significant regional differences in the use of the direct service option and the direct funding option, and ensure that decisions on the capacity to provide each service are being made objectively.*
  Status: In the process of being implemented by November 2015.

Details

At the time of the 2013 audit, we noted that on average, children under the direct funding option received IBI services for 35 months, whereas children under the direct service option received IBI services for 25 months—a difference of almost one year. We also found that the average length of time in IBI varied across the province for both service delivery options: for the direct service option, the length of time ranged from 15 months in one region to 34 months in another; for the direct delivery option, the length of time ranged from 11 months in one region to 49 months in another. At the time of the follow-up, the Ministry informed us that regional differences in wait times are still significant, depending on which service delivery option a family chooses. In response to these differences, the Ministry is considering options for providing direction to service providers to address the regional differences in the use of the direct service option and the direct funding option. The Ministry also identified that one region had a much higher number of children receiving IBI services under the direct funding option and for a much longer period of time. The Ministry had supported this agency in its efforts to reduce the number of months of service in the direct funding option. The agency would work with private IBI providers that it funds to amend aspects of service delivery, including setting discharge timelines and revising individual service plan requirements.

Appropriateness of Intervention Methods

Recommendation 2

To help ensure that children with autism have access to evidence-based interventions appropriate to their needs, the Ministry should consider the costs and benefits of offering additional types of therapies and interventions not currently provided, and existing interventions at various degrees of intensity.

Status: In the process of being implemented; Ministry has committed to report back to the Office of the Auditor General by July 2016.

Details

In January 2014, the Autism Spectrum Disorder Clinical Expert Committee (Committee) provided a series of recommendations relating to improving the continuum of care for children with autism. At the time of our follow-up, the Committee was preparing follow-up reports on intervention directed at children showing early signs of autism and best practices in the design and delivery of ABA. The Ministry received the first report in May 2015, and expects the second report to become available by fall 2015. Based on the input from families and other experts, including the Committee, the Ministry is developing options for ensuring that children with autism have access to evidence-based interventions appropriate to their needs.

Intervention Services Funded Outside the Regular Program

Recommendation 3

To ensure that children with autism and their families receive an equitable level of service and support and to address existing inequities, the Ministry of Children and Youth Services should apply the same program guidelines to all those who meet the eligibility criteria.

Status: Little or no progress.

Details

In our 2013 audit, we reported that more than 40 people aged 14 to 25 were still actively claiming IBI therapy and other costs as of March 31, 2013. These people had been receiving services for at least twice as long as children in the regular IBI program. The Ministry does not typically provide IBI services to children aged 14 or older; as at March 31, 2015, only five of the other over 1,400 children in the Ministry's regular IBI program were in that age range. We also found instances where the Ministry reimbursed expenses to some of these individuals to which children in the regular program were not entitled, and that it reimbursed for therapy beyond the 40 hours per week maximum allowed under the regular program. At the time of our follow-up, the Ministry reported it was still reimbursing expenses to these individuals because no transition planning work has been done as of yet with the families. The Ministry is considering options with respect to the transition work with the objective of ensuring children with autism receive an equitable level of service and support. In the year ending March 31, 2015, the Ministry paid in total $2.6 million to 38 people, similar to the annual amount paid at the time of our 2013 audit.

Autism Services and Supports in Schools

Autism Training for Educators and Transitioning from Community-based Intervention to Schools

Recommendation 4

To better ensure that children with autism receive cost-effective supports while in school, the Ministry of Children and Youth Services, in conjunction with the Ministry of Education, should:

- *review the need for the use of autism spectrum disorder (ASD) consultants at many school boards that already employ people to provide similar services, and ensure that all ASD consultants are effectively utilized;*

  Status: In the process of being implemented by June 2016.

Details

As noted in our 2013 audit, since the Ministry of Children and Youth Services (Ministry) launched the school support program in 2004, the Ministry of Education has supported the incorporation of ABA methods in the school system and the building of the capacity of schools to support students with autism, including funding for ABA experts and training activities for educators. In the year ending March 31, 2014, the Ministry transferred $5 million in funding from the School Support Program to the IBI program to create more spaces. As of March 31, 2015, there were 115 full-time-equivalent school support program staff employed in service agencies, 17% fewer than two years prior. As well, in May 2015, the Ministry and the Ministry of Education began examining what resources—including the Ministry of Education's ABA expert resources, the Ministry's school support program staff resources, and teaching materials used in schools—were available to schools compared to what students with autism and their educators need. The Ministry expected to complete this work by June 2016.

- *define minimum training requirements to assist existing and future educators to use Applied Behaviour Analysis (ABA) principles in the classrooms, and monitor uptake of these education programs;*

Status: Fully implemented.

Details

In April 2014, the Ministry of Education notified all school boards that training for educators who work with students with autism (or who may work with them in the future) should include five areas:

- behaviour;
- functions of behaviour;
- assessments and data collection to inform ABA instructional methods;
- development, implementation and monitoring of effective individual education plans and transition plans that incorporate ABA methods in a variety of education settings; and
- principles of ABA with a focus on ABA instructional methods.

In addition, the Ministry of Education partnered with the Geneva Centre for Autism, an organization in Ontario that provides clinical intervention services and training programs, to offer a new online certificate course that incorporates these principles. The course was launched in September 2014. As of March 2015, about 1,100 educators and school board personnel had started the course, about 500 of whom had completed it. The Ministry of Education told us it relies on school boards to report whether the training opportunities they offer to their staff comply with the new training requirement. For the 2014/15 school year, 57% of school boards reported that they complied all of the time, 18% reported they complied most of the time, and 25% reported they complied some of the time.

- *assess the usefulness of various online and other resource tools available to assist teachers with effective educational practices for students with autism, and facilitate cost-effective access to the best tools available.*

Status: Fully implemented.

Details

In April 2014, the Ministry of Education launched an online forum for ABA expertise professionals in school boards. This forum contains resources that a provincial working group of school board ABA expertise professionals has identified as being effective in improving the outcomes for students with autism. As well, in January 2015, the Ministry of Education launched a dedicated page on EduGAINS, a website with classroom-ready resources for educators. This website includes resources to support educators in programming for students with autism. In addition, in partnership with the Geneva Centre for Autism, the Ministry of Education will monitor the use of the online certificate course mentioned above.

Transition Services for Older Children

Recommendation 5

To help ensure that appropriate services and supports are available to persons with autism as they prepare to leave the children and youth system, the Ministry of Children and Youth Services, in conjunction with the Ministry of Community and Social Services and the Ministry of Education, should develop processes to assess whether individuals with autism made successful transitions, including surveys to gauge satisfaction for those who made the transitions and their families.

Status: In the process of being implemented by February 2016.

Details

In September 2014, the three ministries involved in transition-planning for people with developmental disabilities began to implement a framework establishing processes for collecting information to be used in evaluating the effectiveness of their transition-planning protocols. For example, one process was for conducting a survey to gauge client satisfaction with the transition-planning process. At the time of our follow-up, the three ministries were still developing the survey, and expected to implement it in February 2016. After collecting the responses, the ministries plan to analyze the information and make necessary adjustments to transition-planning protocols.

The Ministry reported that between October and December 2014, a total of 1,112 unique requests for an integrated transition plan were made. The number increased to 1,629 between January and March 2015, suggesting that more people are aware of the opportunity to integrate transition plans.

Autism Funding

Recommendation 6

To ensure that all regions use autism funding cost-effectively to meet local demands, the Ministry of Children and Youth Services should:

- *ensure that all lead service agencies place children on the wait list for IBI services only after determining their eligibility, and review whether its funding allocation is aligned with service demand;*

Status: In the process of being implemented by November 2015 for the first recommended action and by December 2016 for the second recommended action.

Details

In the fall of 2015, the Ministry planned to revise the Waitlist Management Directive after consulting with the Regional Autism Providers of Ontario Network on the best way to bring consistency to the use of the referral date (the date to be used when placing a child on a wait list for IBI services) by all lead IBI service providers. In the case of the service agency that we noted in our 2013 audit that was placing children on the wait list before a diagnosis of autism was confirmed, the Ministry informed us that the agency was implementing a policy to stop accepting referrals for children who did not have a confirmed autism diagnosis.

As for reviewing whether its funding allocation is aligned with service demand, the Ministry indicated it would wait until it had more information on IBI wait times in both the direct service and direct funding service delivery options, which it began collecting in April 2013. The Ministry said it intends to use that information to support future policy and program design activities and potential funding decisions.

- *periodically compare and analyze agency costs for similar programs across the province, and investigate significant variances;*

Status: In the process of being implemented by December 2015.

Details

In June 2014, the Ministry collected staffing and financial data from service providers so it could compare and analyze costs for similar programs across the province. The Ministry completed analysis of the cost information in July 2015 and will complete a final report on the analysis at the end of 2015. According to the Ministry, this analysis will help identify cost drivers for the IBI program and will allow it to investigate significant variances across similar-sized agencies providing IBI services.

- *review the reasonableness of the hourly rate under the direct funding option, which was set in 2006.*
  Status: In the process of being implemented by December 2016.

Details

In our 2013 audit, we noted that the hourly reimbursement of $39 for the IBI program delivered under the direct funding option had not been updated since it was set in 2006. The Ministry has said it planned to determine the next steps in setting a new hourly rate based on the analysis of staffing and financial data from service providers and the salary levels of current therapist postings.

Oversight of Service Providers

Recommendation 7

To better monitor whether service agencies are meeting key program guidelines and providing quality services, the Ministry of Children and Youth Services should:

- *review the type of data that agencies are required to submit, and ensure key information is received and analyzed;*
  Status: In the process of being implemented by December 2016.

Details

Since April 2013, the Ministry has streamlined the quarterly reporting template that it requires IBI service agencies to complete, and has reduced the frequency that it requires certain data (such as the age of children receiving services) to be reported. In September 2014, the Ministry began producing new quarterly reports on autism services that compare current and historical information on IBI and ABA, including regional and provincial data on the following: wait times; wait lists; the number and age of children receiving services; the proportion of children who met program goals; and the overall average cost per space or instance of service. The Ministry started using a new data verification process. Corporate office staff are to verify that all required autism service information has been reported. Then they are to identify variances, follow up on the variances with regional offices and ensure that service agencies interpret the data correctly.

In our 2013 audit, we suggested that the Ministry collect additional information, such as the percentage of families on the wait list that received support services, as well as the number and cause of lost hours of service. At the time of our follow-up, the Ministry had not collected this information, but plans to have conversations with the lead IBI service providers in fall 2015 about the possibility of tracking the lost hours of service by cause. Following these conversations, the Ministry will determine whether the lost hours of service can be tracked through the quarterly reporting mechanism or other means, and will implement any proposed action regarding this issue by the end of 2016.

- *periodically verified through site visits.*
  Status: Little or no progress.

Details

The Ministry has no plans to verify information through site visits as we suggested in our 2013 audit. The Ministry said its new data verification process would enable it to detect inaccurate information. However, it further stated that it might reconsider site visits if it determines that the improvements it made to data verification and analysis did not achieve their intended purposes.

Effectiveness of Autism Services and Supports

Recommendation 8

To help ensure that services and supports for children with autism are meeting their needs, the Ministry of Children and Youth Services should:

- *develop performance measures and targets for each of its autism services and supports to assess their effectiveness in improving children's outcomes;*

  Status: In the process of being implemented by May 2016.

Details

The Ministry has developed a framework for performance indicators to measure accessibility, effectiveness and efficiency of ABA-based services. It had begun collecting data in areas such as the average time children had to wait to receive ABA-based services, the proportion of children who had met their service goals at discharge, and the average cost per instance of service. However, at the time of our follow-up the Ministry had not yet established any targets for these indicators. The Ministry rolled out two client outcome measurement tools to all ABA service providers in April 2015: the Child and Adolescent Needs and Strengths—Autism Spectrum Profile (CANS-ASP); and the Measure of Processes of Care-20 (MPOC-20). The Ministry expects that the data collected with these tools will provide it with information on whether children, youth and their families experienced positive change, and whether families felt satisfied with the services they received.

We reported in our 2013 audit that the Ministry did not have outcome measures for the IBI program and the School Support Program. At the time of our follow-up, the Ministry had begun collecting data on how many children had met their goals in the IBI program, but still had not established a target. The Ministry plans to evaluate whether MPOC-20 could help it to determine the effectiveness of IBI. Further, the Ministry had not yet established outcome measures for the school support program at the time of our follow-up. It indicated that it would develop performance measures after it establishes a resource inventory with the Ministry of Education, which it expects to complete by May 2016.

- *conduct periodic program evaluations [on IBI and ABA], including parent satisfaction surveys, and consider conducting a long-term effectiveness study of children who received IBI services and children who were denied IBI services;*

  Status: In the process of being implemented by May 2016.

Details

The Ministry noted that it had conducted an evaluation on whether decisions on IBI eligibility and discharge had been made appropriately. It also implemented an independent review mechanism in December 2012; families can request an independent reviewer to rule on whether decisions made by original IBI service providers were consistent with information in the child's file. In the year ending March 31, 2015, 87.5% of the independent reviews on eligibility were consistent with the original decision, and 94% of the independent reviews on discharge were consistent with the original decision. At the time of our follow-up, the Ministry was not considering a long-term effectiveness study of children who received IBI services and children who were denied IBI services.

The Ministry said that it expected to complete a comprehensive evaluation of the ABA program's implementation and outcome by May 2016.

- *modify services and supports as required.*

  Status: Little or no progress.

Details

As the evaluation results were not yet available at the time of our follow-up, the Ministry has not yet modified services and supports as recommended.

Chapter 4

Section

4.02

Ministry of Health and Long-Term Care

Health Human Resources

Follow-up to VFM Section 3.02, *2013 Annual Report*

RECOMMENDATION STATUS OVERVIEW

	# of	Status of Actions Recommended			
	Actions Recommended	**Fully Implemented**	**In Process of Being Implemented**	**Little or No Progress**	**Will Not Be Implemented**
Recommendation 1	4		3	1	
Recommendation 2	3		3		
Recommendation 3	1		1		
Recommendation 4	2		2		
Total	**10**	**0**	**9**	**1**	**0**
%	**100**	**0**	**90**	**10**	**0**

Background

The Ministry of Health and Long-Term Care (Ministry) and the Ministry of Training, Colleges and Universities jointly developed the HealthForceOntario Strategy (Strategy) in 2005/06 to address concerns over shortages of physicians and nurses in Ontario and long wait times. The intent is to ensure that Ontario maintains the right number, mix and distribution of qualified health-care providers. Total expenditures for the Strategy in 2014/15 were $742 million ($738.5 million in 2012/13), an increase of 66% (65% to 2012/13) from the $448 million spent in 2006/07. Between 2006/07 and 2014/15, the Ministry had spent $5.7 billion ($3.5 billion to 2011/12) on the Strategy.

As part of the Strategy, the Ministry established the HealthForceOntario Marketing and Recruitment Agency (Agency) in 2007. The Agency focuses on recruitment and retention of health professionals.

We noted in our *2013 Annual Report* that, overall, Ontario had not achieved its goal of having the right number, mix and distribution of health-care professionals to meet its future health-care needs, despite the fact that it had seen an 18% increase in physicians from 2005 to 2012 and a 10% increase in nurses from 2006 to 2012. Our most significant observations included the following:

- Access to health care was still a problem for some Ontarians, particularly those who live in rural, remote and northern areas of the province. As of 2011, 95% of physicians in Ontario practised in urban areas and 5% in rural

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areas. At the same time, 14% of the population lived in rural areas.

- Many specialists who were trained in Ontario—at a cost of about $780,000 each (including $375,000 for resident salaries and benefits)—did not stay and practise in Ontario primarily because there were few full-time employment opportunities for these graduating specialists. Statistics show that, on average, 33% of Ontario-funded surgical specialist graduates left the province each year from 2005 to 2011, even though there were long wait times for some of the same services (such as forefoot surgery and knee replacement surgery) that these physicians were trained to provide.
- Locum programs, which provide access to physicians in eligible communities on a short-term basis, particularly in Northern Ontario, were instead being used for long periods of time. The latest data available at the time of our audit indicated that there were about 200 permanent positions for specialists vacant in Northern Ontario. At the time of our 2013 audit, one-third of the hospitals had been using temporary physician services as part of the Emergency Department Coverage Demonstration Project. One hospital has been using these physician services continuously since 2006 while the others adopted them in 2007.
- At the end of 2011, 66.7% of nurses were working full-time in Ontario, just slightly under the Ministry's goal of having 70% of nurses working on a full-time basis. However, the Ministry needed to improve its oversight and assessment of the effectiveness of its nursing programs and initiatives. For example, the Nursing Graduate Guarantee Program provides organizations with funding for up to six months with the expectation that they will offer permanent, full-time jobs to participating new graduate nurses. But only about a quarter of these new graduate nurses in 2010/11 and a third in 2011/12 were actually given permanent full-time jobs.
- Although the physician forecasting model's partnership with the Ontario Medical Association was a positive step in determining the requirements of the physician workforce, it was hampered by the limited reliability and availability of data, especially on physician productivity. These limitations made it difficult to plan the optimal number, mix and distribution of physicians to ensure their appropriate funding, training and employment.
- Further, the nursing model that was under development at the time of our 2013 audit did not consider the number of nurses needed to meet the population's needs.

Standing Committee on Public Accounts

The Standing Committee on Public Accounts (Committee) held a hearing on this audit in December 2014. In May 2015, the Committee tabled a report in the Legislature resulting from this hearing. The Committee endorsed our findings and recommendations, and also issued an additional seven recommendations. In June 2015, the Ministry and the Agency notified the Committee that they would respond to the Committee's recommendations by September 25, 2015. The Committee's recommendations and the status of the implementation of these recommendations are found in Chapter 7.

Status of Actions Taken on Recommendations

The Ministry of Health and Long-Term Care (Ministry) provided us with information in the spring and summer of 2015 on the current status of the recommendations we had made in our *2013 Annual Report*. According to this information, the Ministry has made progress in implementing most of the recommendations, but has not fully implemented any of them.

We noted that the Ministry has made significant progress in the following areas: its efforts to increase the supply of physicians in the specialty areas and geographic areas of need; efforts to improve new nurse participation in the Nurse Graduate Guarantee Program; and in completing financial reconciliations of payments made to organizations and identifying recoveries on a timely basis. However, we noted that the Ministry needed to improve its efforts to increase the percentage of nurses employed full-time. It also needed to address in its physician planning model such factors as availability of diagnostic and laboratory equipment and operating rooms to perform surgeries as well as physician preferences for certain specialties and practice locations.

The status of the actions taken on each recommendation is summarized as follows.

Physicians

Recommendation 1

To better meet the health-care needs of Ontarians, the Ministry of Health and Long-Term Care, in conjunction with the HealthForceOntario Marketing and Recruitment Agency, should:

- *compare the existing mix and distribution of physicians across the province to patient needs and consider what measures it can take to reduce any service gaps;*

  Status: In the process of being implemented by December 2016.

Details

The Ministry indicated that it does not need to increase the province's overall physician supply because the supply is now stabilized. According to the Ministry, the number of first-year postgraduate residents increased from 557 to 1,237, or by 122%, between 2000 and 2014.

As well, between 2002 and 2012, the 33% increase in the supply of actively practising physicians in Ontario outpaced the 13% increase in population. The Ministry also predicts, through the use of its physician supply and service utilization models, that the supply of actively practising physicians will increase by another 23% from 2015 to 2025. By the year 2025, the Ministry expects that physician supply will outpace anticipated service utilization by 8%.

Even though the overall physician supply has stabilized, the supply of physicians is not yet distributed consistently across specialty groups (such as orthopaedic, internal medicine, and cardiac) or geographic regions. To better allocate physicians among geographic regions, the Ministry took into account the Communities by Rurality Index for Ontario Score (measuring the accessibility of health care in rural areas), family physicians to population ratio, and input from Local Health Integration Networks. In 2015, the Ministry introduced two payment incentives to physicians to encourage them to practise in areas of high needs:

- The Ministry announced changes to primary care physician payments in February 2015 to increase the supply of physicians in the identified geographic areas of need. As well, the Physician Service Agreement established a managed entry process for Family Health Network and Family Health Organization payment models for physicians. These models are more lucrative than the fee-for-service model. Therefore, effective June 1, 2015, physicians will participate in these models only in areas of high physician need or to replace exiting physicians who were already operating under these models.
- The Ministry also operates an income stabilization program to help certain new physicians build their patient rosters. Physicians eligible for this program include those who have joined a Family Health Network or Family Health Organization, those who are in their first year of primary care practice or physicians with one year of Ontario fee-for-service billing history. The program pays a guaranteed compensation rate for up to 12 consecutive months, starting from when these

physicians become a member with the Family Health Network or Family Health Organization. The Ministry amended the program in June 2015 to limit it to new physicians commencing in Family Health Networks or Family Health Organizations through the managed entry process, as well as to the replacement of physicians in areas of high physician need.

In addition, the Ministry has worked with health care partners to share information and evidence and to explore the development of a co-ordinated approach to addressing current and future physician planning challenges in Ontario. In October 2014, the Ministry met with the College of Physicians and Surgeons of Ontario and physician stakeholders, including the Ontario Medical Association, the Centre for Evaluation of Health Professionals Educated Abroad, and the College of Family Physicians of Canada.

Recognizing that physician planning extends beyond Ontario's borders, since the fall of 2013 the Ministry has acted as Co-Chair with the Association of Faculties of Medicine of Canada of the Pan-Canadian Physician Resource Planning Task Force (Task Force). This Task Force was established to facilitate collaboration and co-ordination of pan-Canadian physician human resources planning in support of the Deputy Ministers of Health and the Deans of Medicine, and to promote improved alignment between physician supply and the health care needs of the population. The Task Force is comprised of representatives from federal and provincial governments, national stakeholders, medical educators and learner organizations.

- *assess how various factors, including hospital funding and capacity and health delivery models, affect patients' access to needed services and physician employment, and develop cost-effective solutions where concerns are identified;*

  Status: Little or no progress.

Details

In December 2014, the Ministry initiated an internal discussion involving representatives from different divisions within the Ministry to explore the link between hospital funding and human resources planning. In February 2015, the C.D. Howe Institute issued a report entitled *Doctors without Hospitals: What to do about Specialists Who Can't Find Work*. The report noted that recently graduated specialists in Canada cannot find work, despite long wait times for their services. The report explained that one reason for this reality is the way specialists and hospitals are funded—hospitals are paid a fixed, lump-sum payment to cover their operating costs, while specialists are paid on a fee-for-service basis by provincial insurance plans instead of by the hospitals where they work. As a result, the fixed budgets given to hospitals restrict the resources available to doctors who need operating room time and nursing staff. The report included a recommendation to policymakers to give hospitals the budgets and authority needed to contract specialist physician services. The Ministry indicated that, given the complexity of physician negotiations and hospital funding formulas and their broad impact on the entire health system, it is not feasible to pursue the report's recommendations at this time.

- *continue to work with medical schools and associations to encourage more medical students to select fields of study and geographic areas in which to practise that are in demand;*

  Status: In the process of being implemented by December 2016.

Details

The Council of Ontario Universities Postgraduate Medical Education Working Group (Council) developed a province-wide plan for accepting medical residents. This plan reflects current physician supply trends and assigns the number of learners that medical schools should plan for, according to each specialty. Working with the medical schools, the Ministry used this plan to support the reallocation of existing residency positions in medical schools in the 2015/16 year—from programs with forecasted surplus to programs with forecasted need—and communicated the approved changes to the Deans of Medical Schools in September 2014. The use of this plan resulted in a reduction in the number of orthopaedic surgery positions while increasing the number of psychiatry positions by about the same number.

As well, the Ministry noted that the HealthForceOntario Marketing and Recruitment Agency (Agency), with the support of Ontario's six medical schools, conducts presentations at medical schools and at events such as the annual Ontario Medical Students' Weekend. The objective is to make students more aware of the Agency's career planning services, rural practice opportunities and the physician employment landscape.

To determine the number and mix of residency positions for 2015, the Ministry in 2014 worked with the Council of Ontario Faculties of Medicine and medical schools to launch a strategic, evidence-informed approach to medical education planning. The Ministry indicated that it will continue to work with medical education partners in 2015 to monitor the implementation of this approach, and will create a process for the development of future, multi-year plans.

- *assess the effectiveness of its various physician initiatives in meeting the health care needs of underserved areas.*
  Status: In the process of being implemented by March 2016.

Details

At the time of our follow-up, the Ministry was evaluating the outcomes of its major programs that are intended to affect distribution of physicians to underserved areas in order to determine their effectiveness and whether they meet the needs of communities with recruitment challenges. It expects to complete its analysis and make evidence-based policy recommendations by March 2016.

The major programs being evaluated included the following two physician initiatives:

- a five-year tracking study to evaluate the extent to which the Northern Ontario School of Medicine (School)'s undergraduate and postgraduate medical education programs improve the supply and distribution of physicians in Ontario's most northern and rural communities. In June 2015, the School provided the Ministry with the results of the study, which focused on learners and residents of family medicine programs. According to the Ministry, the results were positive and reinforced the province's policy to educate physicians in northern and rural communities and encourage them to practise in those communities. The Ministry requested that the School extend the tracking study for three additional years to measure the impact of the School's graduates in eight specialty residency programs; and
- an evaluation of the effectiveness of the Return of Service Program, which provides funding to support a physician's postgraduate medical training in exchange for a commitment to practise medicine in an eligible Ontario community for an agreed upon period of time, usually five years. The evaluation, which began in November 2014, focuses primarily on the retention rate of physicians in underserviced areas after they complete the program. It also focuses on factors beyond financial that may have an effect on whether doctors remain or leave underserviced communities after program completion. The evaluation included a review of five programs: International Medical Graduate Program, Repatriation Program, Emergency Medical Training Program, Resident Loan Interest Relief Program, and Re-entry Residency Training/Education Program, as well as an

assessment of the effectiveness and impact of the Northern and Rural Recruitment and Retention Initiative. The Ministry received the results of the evaluation in October 2015 and expects to use them to inform its policy recommendations by March 2016.

The Ministry funds four locum programs (the Emergency Department Coverage Demonstration Project, the Northern Specialist Locum Program, the Rural Family Medicine Locum Programs, and the General Practitioner Vacancy Locum Coverage Arrangements) to provide primarily northern and rural communities access to physician care when those communities have temporary physician absences or vacancies. The Ministry, on a quarterly basis, internally reviews the four locum programs, focusing on areas such as process improvements, expense reimbursement, assessment of need for the programs, performance measurement, and co-ordination of support in communities and/or hospitals where multiple programs are engaged simultaneously. The Ministry has not yet identified and evaluated options for improved integration of locums into broader health human resources planning to support the delivery of health care in Ontario communities facing physician shortages, but plans to do so.

According to the Ministry's comparison of the locum costs of all four programs for a nine-month period from April to December of 2013 and 2014, costs for two programs increased while those for the other two programs decreased, indicating that the medical needs of individuals in these geographic areas were being met while their physicians were temporarily unavailable.

- Both the Northern Specialist Locum Program and the Emergency Department Locum Program demonstrated reductions in cost. This decrease is due to recruitment and retention of physicians in rural, northern and high-need geographic areas, resulting in less reliance on locum usage and reflected in the cost reduction.
- Both the Rural Family Medicine Locum Program and the General Practitioner Vacancy Locum Coverage Arrangements demonstrated increases in cost. These increases are due to greater respite services to support local physicians who are on vacation, engaging in continuing education or on leave for other reasons. The increased costs also reflect an increase in vacancies of general practitioners who are able to provide services in both primary care and hospital settings (emergency department coverage, in-patient care, etc.) in the northern areas. These increases reflect the fact that full-time doctors are hired, resulting in them using the locum services for vacations and attendance at courses or conferences.

Nurses

Nursing Initiatives

Recommendation 7

To provide an appropriate level of nursing services and thereby improve access to care across the health sector, the Ministry of Health and Long-Term Care should:

- *monitor nursing employment trends and assess the outcome of its nursing initiatives in transitioning graduating nurses to permanent full-time employment;*

  Status: In the process of being implemented by December 2016.

Details

To promote the continuity of care, consistency of care providers, and recruitment and retention of nurses, at the time of our audit in 2013, the Ministry set a goal of having 70% of nurses employed in full-time positions. This goal remains in 2015. However, we noted that performance against this goal has deteriorated since our audit—in 2012, 66.7% of nurses were employed on a full-time basis. This percentage has now dropped to 65.9% in 2014, the most recent data available at the time of our follow-up.

To increase nursing employment rates, the Ministry implemented several nursing initiatives, including the Nursing Graduate Guarantee Program (Program). In January 2016, to help the Ministry better monitor nursing employment trends, the Ministry made changes to its Nursing Graduate Guarantee Program's financial reporting system. One of these changes was to require employers participating in the Program to submit information on their new graduate nursing employment outcomes. Another change was calculating financial information, such as the expected salary benefits paid to new nurses based on weeks worked and approved budgets to help determine whether correct payments were made.

As well, in May 2017, the Ministry reviewed data for the first time on the employment outcomes of new graduate nurses who participated in the Program in 2015/16. The objective of the review was to assess whether the Program was able to promote permanent, full-time positions for new nursing graduate participants. The Ministry advised us that it plans to continue this review annually to support policy changes and enhancements to the Program, and will use the 2015/16 results as a baseline for future review comparisons. The 2015/16 review also incorporated the results of an external evaluation completed in December 2016. According to the review, the Program was still unsuccessful in promoting permanent, full-time positions for both Registered Nurses (RNs) and Registered Practical Nurses (RPNs). Only 19% of all new graduate nurses participating in the Program were bridged to permanent full-time employment (consisting of 22% for RNs and 17% for RPNs). 37.5% of nurses were bridged to permanent part-time and 21.5% were bridged to other types of employment status, while 5% were not bridged into any position.

The Ministry's review also identified that the acute care sector is over-represented in its use of Program funds, as it employed 82% of all new graduate nurses in 2015/16. There was a lack of uptake of the Program in the home, community and long-term care sectors, which does not meet the Ministry's focus on creating a better foundation in these sectors to better meet patient needs.

The Ministry's review made a number of recommendations that included, for example, targeting the home, community and long-term care sectors, re-evaluating the purpose and brand of the Program, and auditing organizations to determine if the Program is being utilized with the intention of bridging new graduate nurses into permanent, full-time employment.

The Ministry plans to address these recommendations by conducting an analysis of employment outcomes for 2016/17 and evaluating the 2016/17 communications strategy to determine if it resulted in an increased participation in the Program in the home, community and long-term care sectors in that year. It also plans to consult with organizations to determine the barriers to using the Program and to continue to refine its performance indicators.

- *assess the reasons for declining participation rates of nurse graduates in its Nursing Graduate Guarantee Program, and take steps to improve program effectiveness, including encouraging participation in the program across sectors;*

  Status: In the process of being implemented by December 2018.

Details

In our 2015 audit, we noted that the percentage of all new nurse graduates participating in the Nursing Graduate Guarantee Program (Program) declined from 62% in 2007/08 (83% RN graduates and 35% RPN graduates) to 35% in 2011/12. At the time of the follow-up, we noted that the rate further declined to 20% in 2015/16 (28% RN graduates and 12% RPN graduates). The external evaluation confirmed that the 2015/16 participation rate is significantly lower than that of 2007/08.

On the employer side, according to the external evaluation, 66% of the employers who participated in the Program were from the acute care sector, but a significantly lower proportion of employers were from the long-term care sector and community care sector, at 13.7% and 7.4%, respectively. For the new graduate nurses in 2013/14, 77% were hired into the acute care sector (down from 85% in 2007/08); 14% (compared to 8% in 2007/08) found jobs in the long-term care sector; and 9% (up from 7% in 2007/08) were hired in the community or other sectors.

The review also identified that in 2013, the majority of new nurse graduates learned about the Program from other students (55%) or teachers/professors at school (54%). It indicated that a review of trends showed a decrease in the percentage of new graduate nurses hearing about the Program through promotional advertisements at school. Specifically, 34% of new nurse graduates in 2012 learned of the Program through school promotion, but only 29% did so in 2013. In response to these results, the Ministry engaged an external consultant in July 2014 to develop a communications strategy to help promote and encourage participation in the Program. It targeted new graduate nurses, internationally educated nurses and health care employers from all sectors. The Ministry and other Program partners (including Nurse Ambassadors—new nurses interested in representing the Program—and the CARE Centre for Internationally Educated Nurses) promoted and facilitated live sessions and webinars with nursing students, internationally educated nurses and employers between October 2014 and March 2015.

Based on these efforts, the Ministry significantly increased the number of employers reached from 104 to 717 between fall 2012 and 2014/15. The Ministry was also able to improve its reach of internationally educated nurses, from zero in previous years to 138 in 2014/15. Further, the Ministry introduced a new initiative that identified 105 Faculty Champions from each college and university nursing program to help it share information directly with students on campus. And the Ministry introduced Nursing Ambassadors to represent the Program.

The Ministry also promoted the Program at various conferences such as the Ontario Long Term Care Associations' Fall Symposium; the Ontario Hospital Association HealthAchieve Conference and CARE's Annual Conference for Internationally Educated Nurses. It developed a targeted social media campaign as well to increase participation in the Program.

The Ministry indicated that an evaluation of the communications strategy will be conducted, including the social media campaign results, to determine the impact on participation from all areas.

In April 2015, the Ministry requested that the external party that conducts the annual evaluations of the Program include for future reviews additional analyses into: employment outcomes, Program participants, employer participation, Program uptake by nursing category (RN, RPN) and Program uptake by the health care sector (acute care, long-term care, home care, etc).

- *monitor the nurse practitioner-led clinics more closely to ensure that they are meeting program requirements and achieving their patient targets and program objectives.*

  Status: In the process of being implemented by December 2017.

Details

In our 2013 audit, we noted that the Ministry had set a target of 40,000 registered patients with the 25 nurse practitioner-led clinics (clinics) in the province, but only about 33,000 patients were registered as of January 2013. The Ministry noted that, by December 2013, the number of registered patients with the 25 clinics rose to 43,296, surpassing the target. As a result, the Ministry set a new target of 77,300 registered patients as a goal for the clinics. As of October 2014, the clinics had achieved 62.8% of this target. The Ministry noted that it will monitor how clinics work towards the 77,300 target by reviewing information that clinics submit quarterly, starting in 2015/16.

Since the clinics became operational, the Ministry developed a standardized annual report for clinics to capture information regarding patient access, integration, collaboration with other organizations and quality improvement initiatives. The annual reports will also include the clinics' strategic priorities and vision, and any changes requested to professional staff and operational budgets. The Ministry began collecting annual reports from clinics starting in 2015/16. The Ministry also developed quarterly report templates for use starting in April 2015 to capture information on the number of patients seen for each of the clinic services and by the different health professionals working in the clinics.

The Ministry indicated that it is working with partners, including Health Quality Ontario, on a primary care performance framework to assist in the ongoing monitoring of the clinics and their achievement of intended results. Health Quality Ontario has identified 112 practice-level measures and 179 system-level measures for primary care organizations, and is working with its partners to develop the plan and infrastructure to address performance measurement barriers and gaps. The Ministry indicated that no expected completion date has been set for this ongoing work.

Untimely Recovery of Unspent Funds

Recommendation 3

To improve financial oversight of funded organizations and recover unspent funds, the Ministry of Health and Long-Term Care should perform timely reviews of relevant financial statements.

Status: In the process of being implemented by December 2015.

Details

Organizations that receive transfer payment funding from the Ministry are required to annually submit audited financial statements to the Ministry. The Ministry reviews these financial statements to determine if the organization has surplus funds that the Ministry must recover at year-end. When organizations spend more than their transfer payment funds, they do not receive additional Ministry funds.

In September 2014, the Ministry implemented a transfer payment reporting system to support its oversight of organizations that were funded to support health human resources. The system generates quarterly reports, which summarize in-year financial and program requirements. These reports are used to support the budget settlement process, including the recovery of unspent funds.

As of May 2015, the Ministry had completed almost all of its 2012/13 reconciliations and recovered $26.3 million. The Ministry had completed more than half of its reconciliations for 2013/14, and identified $13.6 million in recoveries. The Ministry plans to complete its review of the 2012/13 the 2013/14 reconciliations by December 2015.

Health Human Resource Forecasting Models

Recommendation 4

To provide reasonable and reliable forecasts of the requirements for physicians and nurses and to better ensure effective health human resources planning, the Ministry of Health and Long-Term Care should:

- *conduct assessments of employment trends, the supply and projected needs for health services, and the associated health workforce requirements to best meet those needs cost-effectively;*

  Status: In the process of being implemented—the review and updating of forecasting models are an ongoing activity that the Ministry has committed to do.

Details

Ontario's physician forecasting model, called the Ontario Population Needs-Based Physician Simulation Model, examines the population's health needs and translates them into needs for physician services. This is then compared to the supply of physician services currently available. Any service gaps are quantified and converted into the number of physicians required to meet those needs. The Ministry indicated to us that it has updated two of its three physician forecasting models using the most recently available data:

- The Assessing Inventories and Netflows Physician Supply Model projects the province's future physician supply by specialty, age and sex. This is a supply model that tracks the movement of physicians within the health care system from postgraduate training to practice to retirement. This model also captures data from multiple sources (for example, Canadian Institute for Health Information, Ontario Physician Human Resources Data Centre, Canadian Post M.D. Education Registry, and Royal College of Physicians and Surgeons of Canada) and combines the various inputs to produce physician supply projections.
- The Physician Utilization Model uses OHIP claims data to calculate the number of annual patient visits per physician by specialties. Using population projections, the Ministry estimates the future number of patient visits for each physician.

The Ministry takes the results of these two models, and uses a third model called the Ontario Population Needs-Based Physician Simulation Model to convert the future health needs of the population into a need for physician services. This is then compared to the future supply of physicians' services to arrive at a gap/surplus of physicians by specialty and by Local Health Integration Network. The Ministry applies these modeling results in conjunction with other sources of evidence, such as information from Post Graduate Deans/Managers, HFOJobs postings, reports and other stakeholder feedback, to inform health human resource policy and planning work.

However, there are limitations to these models. For instance, the models cannot incorporate factors that affect physician supply such as the impact of changes to technology and to practice patterns (for instance, new physicians working less, and physicians working in team-based environments). The Ministry noted that it needs to continue its efforts to improve planning and forecasting of the need for physicians in all areas.

In the area of nursing, in 2012 the Ministry entered into an agreement with a large hospital to conduct a review of the supply, distribution and predicted shortfall or surplus of RNs, RPNs and Nurse Practitioners working in selected primary healthcare organizations, long-term care homes and acute-care hospitals (with a focus on those in rural and remote areas) across the province. The Ministry believed that this review could provide better information to support future policy work. The review was completed in April 2013. It found that a vacancy rate of 4.7% was reported across all sectors and staff groups, but higher among Nurse Practitioners (5.8%) and Registered Nurses (5.5%). The review also noted that staffing and recruitment can be vastly different depending on geography and size of an organization. Vacancies at southern or suburban hospitals may be easier to address than those at remote northern facilities in small communities. Thus a vacancy at a small facility of 20 nurses has a potentially larger impact on the organization than at a larger facility with 100 or more nurses.

In addition, the review noted that 14% of RNs in all sectors reviewed were casual staff. This could indicate a high reliance on a nursing staff for a short and indefinite period and their employment may be terminated by either party without prior notice. Sixty one percent of the RNs worked full-time, 39% worked part-time; therefore, the goal of having 70% RNs employed full-time was not met.

The Ministry stated that it is not taking further actions on their review of the supply of nurses, as the data provided in the review was not considered useful to support health human resources planning at a systems level.

- *for physicians and nurses, further refine its forecasting models and their capabilities to assess the impact of various factors on service-provider productivity.*

  Status: In the process of being implemented by December 2016.

Details

In the area of physician human resources planning, the Ministry has updated the data in the two forecasting models to give a more current projection of the supply of physicians according to specialty and demand for those services. We noted in our 2013 audit that the forecasting models are a good step, but they are hampered by limited reliability and availability of data on such areas as physician productivity. Any changes to productivity can affect the number of physicians required. Physician productivity is affected by factors such as changes to technology (electronic health records, telemedicine) and to primary health-care models, other health-care providers (such as nurse practitioners), and funding and compensation models. At the time of our 2013 audit, data on all of these areas except for nurse practitioners was unavailable so they could not be incorporated into the model. This was still the case in 2015 at the time of our follow-up. We also noted that additional factors such as availability of diagnostic and laboratory equipment, operating room time and space to perform surgeries, and physician preferences for certain specialties and practice locations, were still not included in the model at the time of our follow-up.

The Ministry's Ontario Population Needs-Based Physician Simulation Model (physician needs-based model) includes a physician productivity component that allows the simulation of a variety of productivity factors, other than the ones noted above. These factors include, for example, non-physician clinician support and information technology improvements. The Ministry stated that it reviews available research and data related to these productivity factors to determine whether their effect on physician productivity can be reliably measured. The Ministry expects to complete the updates to the physician needs-based model in February 2016.

In the area of the nursing forecasting model, we noted in our 2013 audit that the model only addressed the supply side for Registered Nurses and Registered Practical Nurses. It did not address the demand/need factors to determine any gaps or surpluses of nurses. The Ministry is currently researching how demand/need components can be incorporated into an expanded nursing model. The Ministry expects to have developed a preliminary version of the model by the winter of 2016.

Chapter 4

Section

4.03 Healthy Schools Strategy

Ministry of Education

Follow-up to VFM Section 3.03, *2013 Annual Report*

RECOMMENDATION STATUS OVERVIEW

	# of Actions Recommended	Status of Actions Recommended			
		Fully Implemented	In Process of Being Implemented	Little or No Progress	Will Not Be Implemented
Recommendation 1	4		0.75	3.25	
Recommendation 2	4		0.75	3.25	
Recommendation 3	1			1	
Recommendation 4	1		0.25	0.75	
Total	**10**	**0**	**1.75**	**8.25**	**0**
%	**100**	**0**	**18**	**82**	**0**

Note: The partial numbers in some cells occur from recommended actions being implemented to different degrees by the Ministry and the three school boards we audited.

Background

The increasing incidence of overweight children in Canada has become a significant public concern. Nearly one in three students is overweight. About 12% are considered obese—almost twice as many as in the late 1970s. In 2012, the Ontario government set a goal of reducing childhood obesity by 20% in five years.

The Ministry of Education (Ministry), which has primary responsibility for developing and supporting the implementation of policies and programs related to students in publicly funded schools, has established the Healthy Schools Strategy to support students' learning and growth through proper nutrition and physical activity. In this endeavour, the Ministry relies on the support of other government ministries, such as Health and Long-Term Care and Children and Youth Services.

Ontario's 72 publicly funded school boards operate almost 4,900 elementary and secondary schools with an enrolment of approximately 2 million students. At the time of our follow-up, the Ministry had spent about $7.8 million over the three fiscal years 2012/13 to 2014/15 ($5.8 million over the three fiscal years 2009/10 to 2011/12) on activities related to healthy eating and daily physical activity initiatives under the Healthy Schools Strategy.

In our *2013 Annual Report*, we found that the Ministry had developed a policy that set out nutritional standards for food and beverages sold in publicly funded schools, and had revised the school curriculum to require that all elementary students get 20 minutes of physical activity each day during instructional time. However, we found that the Ministry and school boards needed to put more effort into ensuring compliance with these requirements, and they needed to work more effectively with other organizations and stakeholders, including parents, to share effective practices for encouraging healthy living and increased physical activity throughout the system.

Our key observations were as follows:

- Neither the Ministry nor the school boards we visited had effective monitoring strategies to ensure that food and beverages sold in schools complied with the nutrition standards in the Ministry's School Food and Beverage Policy. Officials at the three school boards we visited had not reviewed the food and beverages sold in their school cafeterias to ensure they met the nutrition standards.
- Our review of a sample of menu items at one school board identified a number of items that did not meet nutrition criteria in the food and beverage policy, some to a significant degree.
- Both the Ministry and school boards visited had limited data to assess whether the School Food and Beverage Policy contributed to better student eating behaviours. After healthier food choices were introduced, secondary school cafeteria sales at the three school boards we visited decreased between 25% and 45%. Vending machine revenue also dropped between 70% and 85%. Secondary school principals we spoke with said many students were choosing to eat at nearby fast-food restaurants instead of choosing the healthier foods offered in their school cafeteria.
- There was no formal monitoring by the Ministry, school boards and schools we visited to ensure students in grades 1 to 8 had the 20 minutes of daily physical activity during instruction time as required by the Ontario Curriculum. Two of the three school boards we visited conducted surveys of school representatives, and more than half of those who responded said that students at their schools did not get the required 20 minutes a day.
- The Ministry's requirement for physical activity at the secondary school level was much lower than it was in some other jurisdictions. In Ontario, students had to complete only one credit course in health and physical education during their four years of high school. In Manitoba, students had to obtain four such credits to graduate, and in British Columbia, students are expected to participate in at least 150 minutes of physical activity per week.

We made a number of recommendations for improvement and received commitments from the Ministry and the school boards we visited that they would take action to address our recommendations.

Status of Actions Taken on Recommendations

According to information received from the Ministry and the three school boards we audited in 2013, little or no progress has been made on most of our recommended actions, and few are in the process of being implemented. More effort is needed to implement the recommendations in our *2013 Annual Report*, which were aimed at encouraging healthier eating and more physical activity among students. However, the Ministry noted that it is planning to work with Ontario's school boards to review the effectiveness of the School Food and Beverage Policy and Daily Physical Activity Policy to help ensure maximum results for Ontario's learners.

As well, we did notice some noteworthy efforts, as described below:

- In 2014, the government committed to a long-term government goal for children and youth to have access to 60 minutes of physical activity connected to their school day. To support this goal, the Ministry is working with other organizations, and contracted the Ontario Physical and Health Education Association in 2015 to conduct pilot projects in 20 schools to help identify factors that contribute to successfully achieving 60 minutes of physical activity each day. As well, the Ministry continues to visit school boards and schools to monitor how well the Healthy Schools Strategy and policies are being implemented.
- We also noted that one school board we visited during our 2013 audit had introduced a Healthy Schools lead at each of its elementary schools. This person had been trained to provide daily physical activity and was expected to share the information with others in the school. This school board had also hired a Healthy Active Living consultant who held workshops for teachers on daily physical activity.

The status of actions taken on each of our recommendations is described in the following sections.

Healthy Eating

Recommendation 1

To help ensure that offering healthier food choices in schools contributes to improved student eating behaviours and their goals of improving student health and academic achievement, the Ministry of Education (Ministry) and school boards should:

- *develop consistent and effective strategies to monitor compliance with the Ministry's School Food and Beverage Policy, especially ensuring that all items sold in schools comply with the policy's nutrition standards;*

Status: Ministry: In the process of being implemented by June 2017.
School boards: Little or no progress.

Details

Ministry officials visit school boards to see how the Healthy Schools strategy and policies—including, among other things, the School Food and Beverage Policy (Policy) and the daily physical activity policy—are being implemented. Since our 2013 audit report, the Ministry has visited an additional 35 school boards (12 had been visited at the time of our audit in 2013), including select schools at each of these boards, and plans to visit the remaining 25 school boards by the end of the 2016/17 school year. As part of its site visits, the Ministry now asks questions about the extent to which the Policy has been implemented, and whether school boards have processes in place to monitor implementation. Over the past two years, school boards informed the Ministry that they had monitoring processes in place. However, the Ministry did not verify whether these processes actually ensure that schools were complying with the Policy.

School board 1, which required vendors who sold food and beverages in schools to confirm in writing to school principals that they would comply with the Policy, still did not have a process to verify that the vendors were in fact complying. School board 3 had not implemented a process to directly monitor compliance with the Policy, but its Healthy Schools Committee planned to explore options on how to address compliance in the 2015/16 school year. Similarly, School board 2 did not have a process in place to monitor compliance with the Policy, but was expected to begin conducting spot checks (in co-operation with a local public health unit) at secondary schools in the 2015/16 school year to monitor compliance with the Policy, and planned to review all secondary schools by June 2018.

- *capture additional data on the benefits of and challenges to implementing the School Food and Beverage Policy in order to assess the policy's impact and identify areas on which to focus future efforts;*

Status: Ministry: In the process of being implemented by June 2017.
School boards 1 and 3: Little or no progress.
School board 2: In the process of being implemented by June 2016.

Details

The Ministry continues to collect information on the benefits and challenges of implementing the School Food and Beverage Policy (Policy) through site visits to school boards and schools to assess the Policy's impact and identify areas of focus for future efforts. Through these visits, the Ministry has noted some promising practices used by school boards to implement the Policy, including working with public health units to ensure food and beverages sold in schools meet the Policy's requirements and integrating healthy eating into the classroom to promote changes in the food culture of schools. However the Ministry has not assessed whether these practices are effective. As well, the Ministry has noted some challenges to implementing the Policy, including decreases in the profits of secondary school cafeterias, and schools' lack of time to work with food service providers to ensure they fulfill the Policy's requirements. The Ministry expects to have visited all school boards by the end of 2016/17.

The Ministry also introduced the Healthy Eating in Secondary Schools Grants program in 2014, and provided almost $3.2 million to school boards (23%), secondary schools through school boards (72%), and non-profit organizations (5%) that partnered with school boards or secondary schools on initiatives to increase awareness and access to food and beverages that comply with the Policy's nutrition standards. Initiatives eligible for funding included creating a student nutrition action committee at schools, and a cafeteria development program to develop quality menu items. The Ministry has contracted an external party to evaluate the projects and provide a final report on the challenges, outcomes, successes, and lessons learned. The final report is expected in June 2016, and the Ministry told us it plans to share the results of the evaluation with school boards and schools.

School board 1 had not made any significant progress on implementing our recommended action but it told us it planned to capture additional data on implementing the Policy through a survey of school administrators in the fall of 2015, which would lead to the development of an action plan by the end of 2015. Similarly, School board 3 had not captured additional data on the benefits and challenges of implementing the Policy since our audit, but said its Healthy Schools Committee planned to explore options for addressing our recommendation during the 2015/16 school year. School board 2 had already started to collect information on implementing the Policy through a survey of principals, teachers and volunteers at its schools. The survey demonstrated a number of challenges, including a lack of volunteers and funds, not enough parental awareness, and insufficient training for volunteers and school staff. This school board also planned to establish focus groups in the 2015/16 school year on the Policy and its implementation.

- *ensure that school administrators and teachers receive sufficient training and supports on how to implement the policy and promote healthy eating concepts in the classroom;*

Status: Ministry: Little or no progress.
School boards: Little or no progress.

Details

In our 2013 audit, we noted that both the Ministry and school boards thought it would be beneficial for teachers to be trained on the requirements of the School Food and Beverage Policy and on integrating healthy eating concepts into classroom instruction, including subjects that do not cover curricular components on healthy eating.

However, since our audit, the Ministry has not taken any steps to determine if school administrators and teachers received sufficient training and supports to implement the Policy or to integrate and promote healthy eating concepts in the classroom. The Ministry continues to make resources available to teachers and administrators on how to implement the Policy, and in March 2015 it announced it would provide school boards with $6.4 million for the 2015/16 school year to promote students' wellbeing. School boards could choose to use some of this funding for training purposes.

Since our audit, School board 1 has given new teachers a document that outlines available resources on the Policy and promotes healthy eating concepts. It was also creating training for new school administrators to be provided in the 2015/16 school year. However, with the exception of some health and physical education teachers, at the time of our follow-up the board had not provided training to other teachers on how to promote healthy eating concepts in the classroom and did not have plans to do so. Similarly, at School boards 2 and 3, teachers and school administrators had not been given any training. As of September 2015, School board 2 informed us that it planned to provide training on the Policy every second year to all school administrators, and they will be expected to share the information with staff in their schools. School board 3 advised us that its Healthy Schools Committee plans to further review this recommendation during the 2015/16 school year.

None of the three school boards had assessed whether their teachers and school administrators had sufficient training on how to implement the Policy and promote healthy eating concepts in the classroom. At the time of our follow-up, School board 1 was planning to get feedback from a survey of school administrators in the fall of 2015 and School board 3 was planning to look into how to assess training needs and supports in the 2015/16 school year. School board 2 had no plans to do a formal assessment.

- *develop measurable objectives and related performance indicators for healthy eating activities, and periodically measure progress in achieving these objectives.*

Status: Ministry: Little or no progress.
School boards: Little or no progress.

Details

At the time of our follow-up, the Ministry had not developed any specific measurable objectives and related performance indicators to assess whether offering healthier food choices in schools contributes to improved student eating behaviours, or health and academic achievement.

Similarly, none of the three school boards had developed measurable objectives and related performance indicators for healthy eating activities. They said they would like direction from the Ministry before doing so.

Physical Activity

Recommendation 2

To help safely increase physical activity as well as contribute to reduced sedentary behaviour and improved academic achievement, the Ministry of Education (Ministry) and school boards should:

- *assess options, including practices in other jurisdictions, for providing sufficient physical activity to both elementary and secondary school students;*

Status: Ministry: In the process of being implemented by June 2017.
School boards: Little or no progress.

Details

The Ministry is engaged in several initiatives to increase physical activity among students. For example,

- In 2014, the government committed to a long-term goal of children and youth having access to 60 minutes of physical activity connected to their school day (at school and in the community). The Ministry, working with other ministries and organizations (including the Ontario Physical and Health Education Association, and ACTIVE AT SCHOOL), has established pilot programs in 20 schools in 2015 (expected to grow up to 250 in 2016) to identify factors that contribute to achieving 60 minutes of physical activity each day.

- In 2014, the Ministry introduced the Physical Activity in Secondary Schools Grants program, and provided grants totalling almost $1.3 million to school boards to help increase the number of students participating in physical activity outside instruction time. Activities eligible for funding included: the expansion of current opportunities for physical activity, creating physical activity committees to engage students in interschool or intramural programs, and developing space for students to be more active in and outside of schools. The Ministry has contracted an external party to evaluate the projects and provide a final report to the Ministry on the challenges, outcomes, successes and lessons learned (to be shared with all school boards and schools). The final report is expected in June 2016, and the Ministry plans to use this evaluation to inform its next steps for physical activity programs, policies and initiatives by June 2017.

In addition, the Ministry informed us it was reviewing a recent study by Public Health Ontario on the implementation status of the Ministry's Daily Physical Activity Policy, in order to assess this policy and find ways to increase physical activity for elementary school students. The study found that only about 60% of schools (based on principals' responses) and 50% of classrooms (based on teachers' responses) were meeting the requirements of the Daily Physical Activity Policy.

All three school boards had introduced some initiatives aimed at increasing physical activity, primarily in elementary schools. Examples include: providing equipment and training for school staff to run games and activities during recess; an initiative that challenges students to participate in 20 minutes of vigorous physical activity each day for 20 weeks; and a program centred on the 2015 Toronto Pan Am and Parapan Am Games that helped children and youth learn about and participate in different sport and recreational activities. However, none of the three school boards had assessed options for providing elementary and secondary school students with enough physical activity, and did not indicate any plans to do so.

- *ensure that elementary school administrators and teachers receive sufficient training on good practices and on how to effectively incorporate daily physical activity into the school day;*

  Status: Ministry: Little or no progress.
  School boards: Little or no progress.

Details

In our 2013 audit we noted that the Ministry, as well as those we spoke to at all three school boards we visited, thought that all elementary teachers would benefit from training on how to incorporate daily physical activity in the classroom.

However, since the time of our audit, the Ministry has not taken any steps to determine whether elementary school administrators or teachers are knowledgeable about incorporating daily physical activity into the school day. And the Ministry continues to make resources available to teachers and administrators on how to implement daily physical activity into the school day. In the 2015/16 school year, the Ministry is providing school boards with $6.4 million to promote students' wellbeing, which school boards could use to train teachers and school administrators on daily physical activity, but are not required to.

School board 1 had only provided training on daily physical activity in the classroom to primary school health and physical education teachers, and had no plans to provide such training to other teachers. This school board also provided new teachers with a document outlining daily physical activity requirements, and was in the process of creating training for new school administrators that it planned to provide in the 2015/16 school year. School board 2 told us it had provided training on daily physical activity to about one-quarter of its elementary teachers, and it expected these teachers to share the information with other teachers at their schools. School board 3 advised us it put in place at each elementary school a Healthy Schools lead, who received training on daily physical activity and was expected to provide the information to others. This board also hired a Healthy Active Living consultant, whose duties include holding daily physical activity workshops in elementary schools. Training is scheduled to continue in the 2015/16 school year.

None of the three boards had assessed whether teachers and school administrators were sufficiently trained on how to effectively incorporate daily physical activity into the school day. At the time of our follow-up, School board 1 was planning to get feedback from a survey of school administrators in the fall of 2015, and School board 3 was planning to look into how to assess training needs and supports in the 2015/16 school year. School board 2 had no plans to do an assessment or otherwise determine if its elementary school teachers and administrators had received sufficient training.

- *familiarize teachers with physical activity safety guidelines;*

  Status: Ministry: Little or no progress.

  School boards 1 and 3: Little or no progress.

  School board 2: In the process of being implemented by June 2016.

Details

In our 2013 audit we noted that none of the elementary teachers we interviewed from the three school boards we visited said they had received training on the physical activity safety guidelines, yet the majority thought at least some training would be beneficial.

Since our audit, the Ministry has extended its contract with the Ontario Physical and Health Education Association to make the physical activity safety guidelines available on a publicly accessible website. However, the Ministry has not taken any steps to determine whether teachers are more familiar with the safety guidelines now than they were at the time of our audit.

School board 1 informed us that, since our audit, it has provided training on the physical activity safety guidelines to only primary school health and physical education teachers and some teachers with specific responsibilities for school athletics. School board 2 informed us it had provided training on the guidelines only to those teachers involved in school athletics, but expects to provide training to all school staff in the 2015/16 school year. School board 3 advised us it made individuals designated as a Healthy Schools lead at each elementary school aware of the guidelines as well as some teachers and administrators from each school, but had not provided training or otherwise taken action to ensure teachers were familiarized with the guidelines since our audit.

- *set specific goals and targets for increasing physical activity in schools, and periodically monitor, measure and publicly report on the progress made.*

  Status: Ministry: Little or no progress.

  School board 1: In the process of being implemented by June 2016.

  School boards 2 and 3: Little or no progress.

Details

The Ministry of Education informed us that it supports broad government strategies such as Ontario's Healthy Kids Strategy, developed by the Ministry of Health and Long-Term Care, and the Strategic Framework to Help Ontario's Youth Succeed, developed by the Ministry of Children and Youth

Services. We reviewed Ontario's Healthy Kids Strategy and noted that it contains recommendations but no goals and targets. We also reviewed the Strategic Framework and noted that it contains three indicators to determine whether Ontario youth are physically healthy (specifically, the proportion of youth with a healthy weight, the proportion of youth who are physically active, and the proportion of youth who consume at least five servings of fruit or vegetables daily), but no targets were set for these indicators. Furthermore, although the government committed in 2014 to a long-term goal of providing children and youth access to 60 minutes of physical activity connected to their school day (either at school or in the community), it has not set a target date for implementing the goal.

The Ministry's monitoring of its Daily Physical Activity Policy requires improvement. To illustrate, during its scheduled visits to school boards and schools in 2014/15, the Ministry was informed by school boards that most schools were implementing daily physical activity for elementary school students and had a process for monitoring its implementation. However, a recent study by Public Health Ontario on daily physical activity that the Ministry was reviewing at the time of our follow-up, found that about 70% of school principals and teachers surveyed indicated their school did not have monitoring processes to ensure daily physical activity requirements were being met. And, as previously mentioned, the study highlighted that only about 60% of schools (based on principals' responses) and 50% of classrooms (based on teachers' responses) were meeting the Daily Physical Activity Policy's requirements.

School board 1 had not set specific goals and targets for increasing physical activity in schools, but told us that it planned to use data from recent student surveys and surveys of school principals that it would be conducting in the fall of 2015 to set initial goals by the end of the school year. School board 2 said it planned to implement a process to monitor the Ministry's Daily Physical Activity Policy by September 2016, but was waiting for the Ministry to develop goals or targets for increasing physical activity in schools. School board 3 had no plans to develop any targets for increasing physical activity in schools; however, a survey of its elementary school principals showed that most elementary students participated in daily physical activity, but it was unclear if the activity was sufficient in amount and intensity.

Communication with Parents

Recommendation 3

To help encourage healthier eating and increased physical activity among students, the Ministry of Education (Ministry) and school boards should further explore opportunities to improve communication with parents and assess the effectiveness of such efforts.

Status: Ministry: Little or no progress.
School boards: Little or no progress.

Details

Although the Ministry continues to provide information about healthy eating and physical activity on its website, it has not assessed the effectiveness of its communication efforts with parents.

School boards 1 and 2 informed us that since the time of our audit they had not done anything further to improve communications with parents about the importance of healthier eating and increased physical activity among students. School board 3 said it had increased its communication efforts aimed at parents, through such means as newsletters and social media.

At the time of our follow-up, none of the three school boards had assessed the effectiveness of their communication with parents. However, School board 1 told us it planned to begin assessing its communication efforts in spring 2016 through parent surveys, and School board 2 informed us it planned to meet with its parent committee in the 2015/16 school year to identify more effective ways to communicate with parents about healthier eating and physical activity. School board 3 said it had no plans to assess the effectiveness of its increased communications with parents.

Co-operation with Other Ministries and Organizations

Recommendation 4

The Ministry of Education and school boards should work more effectively with other relevant organizations with similar goals to better integrate and leverage their activities to help encourage healthier eating and physical activity among students.

Status: Ministry: In the process of being implemented.
The Ministry believes the nature of the recommendation is ongoing and therefore has not provided a completion date.
School boards: Little or no progress.

Details

In our 2013 audit we noted that, although the school boards and schools we visited worked with many organizations, the activities of these organizations did not formally factor into the boards' strategies to promote healthier eating or increased physical activity among students. As well, the Ministry and the boards generally did not have information about what these organizations contributed to the development of healthier eating habits by students or the increase in their physical activity.

To help encourage healthier eating and physical activity among students, the Ministry of Education works with other organizations and ministries that have similar goals. For example, as previously mentioned, the Ministry is working toward a goal for children and youth to have access to 60 minutes of physical activity connected to their school day (at school, and in the community). For this goal, the Ministry is working with the ministries of Health and Long-Term Care; Children and Youth Services; Tourism, Culture and Sport; and Municipal Affairs and Housing. It is also working with organizations such as the Ontario Physical and Health Education Association (OPHEA), ParticipACTION, and ACTIVE AT SCHOOL, to get expert advice on a strategy to move forward on the goal. Also, as previously mentioned, the Ministry of Education has contracted with OPHEA to establish pilot programs in 20 schools in 2015 (expected to grow up to 250 in 2016) and plans to work with its partners in the 2015/16 school year to make any changes needed to the initiative.

All three school boards continue to work with local public health units, local boys' and girls' clubs, and organizations focused on physical activity, such as the Canadian Intramural Recreation Association and the YMCA. However, as at the time of our audit, the boards had only limited information about what these organizations contributed to the development of healthier eating habits by students or the increase in their physical activity. At the time of our follow-up, this has not changed. But School Board 2 advised us it planned to review its partnerships with other organizations by June 2016 to assess their impact on students' eating habits and physical activity, while School Boards 1 and 3 had no plans to do so.

Ministry of Health and Long-Term Care

Section 4.04

Land Ambulance Services

Follow-up to VFM Section 3.04, 2013 Annual Report

RECOMMENDATION STATUS OVERVIEW					
	# of	Status of Actions Recommended			
	Actions Recommended	Fully Implemented	In Process of Being Implemented	Little or No Progress	Will Not Be Implemented
Recommendation 1	6	2	4		
Recommendation 2	6	1	5		
Recommendation 3	2		1	1	
Recommendation 4	3		2	1	
Recommendation 5	3	2		1	
Total	20	5	12	3	0
%	100	25	60	15	0

Background

Under the *Ambulance Act*, the Ministry of Health and Long-Term Care (Ministry) oversees land ambulance services in Ontario. It must ensure "the existence throughout Ontario of a balanced and integrated system of ambulance services and communication services used in dispatching ambulances."

The Ministry is also responsible for setting patient-care and ambulance equipment standards, monitoring compliance with those standards and, through service reviews, certifying ambulance service providers. Forty-two municipalities and eight other designated delivery agents are responsible for providing land ambulance services.

In total, 50 Ontario municipalities have about 830 ambulances and 300 other emergency response vehicles, which carry paramedics but do not transport patients.

There are 22 Ministry-controlled dispatch centres in Ontario—11 run by the Ministry, six by hospitals, four by municipalities and one by a private operator. Physicians in seven base hospitals are responsible for providing medical support to paramedics with complex or risky medical procedures. In 2012, about 1.3 million ambulances were dispatched and about 970,000 patients were transported, an increase of about 15% for both since 2008. In 2014 about 1.4 million ambulances were dispatched and about 1,028,000 patients were transported, an increase of about 8% and 6% respectively since 2012.

Over the last several years, the Ministry has funded approximately 50% of each municipality's prior year costs for ambulance services, plus an increase for inflation, as well as 100% of approved costs for ambulance dispatch centres and base hospitals. The Ministry funds 100% of the cost of 10 First Nations ambulance services and those in other remote areas. In 2014/15, total ambulance costs were $1.2 billion ($1.1 billion in 2011/12), of which $715 million ($627 million in 2011/12) was funded by the Ministry and $472 million ($477 million in 2011/12) by municipalities.

From 2004/05 to 2011/12, ministry funding to municipalities for land ambulance services nearly doubled. However, the number of patients transported increased by only 18% during that time. We noted in our 2013 audit that the Ministry did not know whether the increased funding resulted in faster response times or better patient outcomes. From 2011/12 to 2014/15, ministry funding to municipalities for land ambulance services increased a further 17% and the number of patients transported increased by 6%.

The Ministry's funding formula automatically provides more funding each year to ambulance services that spend more, regardless of the level of service they provide. At the time of the 2013 audit, the Ministry had not analyzed the relationship between funding and levels of service, and it had not determined the reasons that some municipalities spent and received more compared to others. In 2012, only about 60% of the 50 municipalities responded to 90% of their emergency calls within 15 minutes. This remained unchanged in 2014.

Our 2013 audit noted other areas where action was needed, including the following:

- The Ministry had set meaningful response time standards for the most time-sensitive patients, such as those who are choking or experiencing cardiac arrest, but not for other urgent cases, such as those suffering a stroke. Each municipality sets its own response-time targets for these patients and they varied significantly, from 9% (in rural areas) to 85% within eight minutes.
- The Ministry did not have a patient-centred measure of the ambulance service system's overall response time, that is, from the time of call receipt to when an ambulance arrived at the patient's location.
- While the Ministry expected to publicly report ambulance response times starting in 2014, the reporting method was to be based on patient urgency, measured by ambulance paramedics after they reached a patient (i.e., retrospectively), rather than on information provided by callers at the time of dispatch. Most other jurisdictions report response times based on information available at the time a call is dispatched. We found no other jurisdiction that used a retrospective response time measure.
- In 2012, none of the 20 dispatch centres that measure their time to respond to emergency calls complied with the Ministry's policy of dispatching 90% of calls within the target of two minutes. However, all dispatched 90% of these calls within three-and-a-half minutes. As of 2013, each dispatch centre was allowed to choose the percentage of urgent calls it would need to dispatch within two minutes. As a result, dispatch centres' compliance rates ranged from 70% to 90%, depending on the centre.
- While dispatch protocols are generally designed to over-prioritize calls when there is uncertainty about a patient's condition, the Ministry's dispatch protocol prioritized more than two-thirds of calls at the most-urgent level, when only about 25% of patients actually required an urgent response. This can leave few or no ambulances available to respond to new calls that are truly urgent.

- The Ministry had not assessed whether the current number of dispatch centres is optimal, or whether centralized dispatch would be more cost-effective.
- The Ministry had no provincial policy to ensure appropriate care of certain heart attack patients, and a June 2013 survey indicated that some ambulances did not have trained paramedics and appropriate equipment to ensure proper patient care for such heart attack patients.
- Municipalities acquired patient-care record software that could not electronically share patient records with hospitals. As a result, hospital emergency room staff often had no access to such records until a day or two later, relying instead on verbal briefings from ambulance paramedics.
- Municipalities were responsible for overseeing most paramedic patient-care activities, even though base hospital physicians had indicated municipal land ambulance service providers may not have had the expertise to provide proper oversight.
- In 2012, over 25% (or about 350,000) of dispatched ambulances did not transport a patient. The Ministry had not assessed the underlying reasons.
- The Ministry had not evaluated whether the patient offload nurse program was providing value-for-money. Between 2008/09 and 2012/13, ministry funding for this program totaled $40 million. We found that, since this program was implemented, ambulance waiting times while stationed at the hospital had actually increased at 20% of the funded hospitals.

We made a number of recommendations for improvement and received commitments from the Ministry that it would take action to address our recommendations.

Status of Actions Taken on Recommendations

According to information received from the Ministry, progress has been made in implementing most of the recommendations in our *2013 Annual Report*. The Ministry has established consistent response times for Sudden Cardiac Arrest and Canadian Triage and Acuity Scale (CTAS) 1 calls for all dispatch centres to better ensure that patients receive timely and high-quality ambulance services. The Ministry now consistently accounts for time spent at a hospital by an ambulance until the patient is accepted and the ambulance is available to respond to another call. To ensure consistent quality in ambulance services, the Ministry implemented a tool for performing unannounced reviews of dispatchers' calls. The Ministry assesses the summary information from these reviews to ensure systemic issues are identified and resolved. The Ministry assigned 22 additional staff to Ministry dispatch centres so that dispatchers would not have to handle more calls than the target number, which helps ensure all calls can be responded to in a timely manner.

The Ministry has fully committed to implementing most of our other recommendations and was working on: establishing performance benchmarks for public reporting; assessing the effectiveness of the Dispatch Priority Card Index II (DPCI II) as compared to the Medical Priority Dispatch System (MPDS) so it could make adjustments where needed to reduce over-prioritization of patients; evaluating the cost-effectiveness of emergency response vehicles to determine how many such vehicles are needed and how to best use them to meet patient needs; and performing a review of the Land Ambulance program to determine why there are differences in service levels and costs for similar populations and geographic areas.

The Ministry has made little progress in implementing three of our recommendations. The Ministry indicated that it plans to evaluate the cost-effectiveness of non-ambulance emergency response vehicles; however, no definitive timelines have been set for when this will occur. The Ministry has not directed base hospitals to periodically review paramedics' basic life support skills because it was waiting for a government decision on whether changes will be made on regulating Ontario's paramedics. The Ministry has not yet developed processes, such as introducing incentives as part of its transfer payments to municipalities, to promote more efficient ambulance service delivery.

The status of actions taken on each of our recommendations is described in the following sections.

Response Prioritization and Time

Recommendation 1

To better ensure that patients receive timely and high-quality ambulance services, the Ministry of Health and Long-Term Care should:

- *establish consistent provincial dispatch centre targets for the percentage of calls to be responded to within the legislated response-time measures for patients experiencing sudden cardiac arrest and other patients whose conditions are assessed as fitting into the highest priority according to the Canadian Triage and Acuity Scale (CTAS)—that is, all CTAS 1 patients—and establish response-time targets and compliance targets for CTAS 2 (second-highest priority) calls, since such calls also involve time-sensitive emergencies;*

  Status: Fully implemented.

Details

The Ministry completed an analysis of 2012 and 2013 CTAS 2 dispatch data and 2013 Sudden Cardiac Arrest and CTAS 1 data in April 2014. The Ministry then began consultations with the management of dispatch centres to establish consistent CTAS 2 dispatch benchmarks for the centres. On September 24, 2014, the Ministry released a memo to senior managers stating that, effective January 1, 2015, a dispatch response time benchmark for processing calls would be adopted requiring they be processed within two minutes as follows:

- Sudden Cardiac Arrest: 80% of the time
- CTAS 1: 80% of the time
- CTAS 2: 75% of the time

These metrics are to be reported to and monitored by the Ministry on an annual basis.

- *monitor ambulance response times for all calls dispatched as emergencies in addition to the legislated evaluation of response times based on the paramedics' determination of the patient's condition after reaching the scene;*

  Status: In the process of being implemented by March 31, 2017.

Details

In December 2013, the Ministry completed an analysis of other jurisdictions to identify possible options for consistent reporting on emergency dispatch response times. It still must consult with the Ontario Association of Paramedic Chiefs (OAPC) to arrive at a consensus on the reporting format for response times for these calls. At the time of our follow-up, the Ministry advised us that the Ministry and stakeholders were unable to meet earlier due to last year's Ebola outbreak and the need to make province-wide preparations to ensure patient safety. The Ministry advised us that discussions with the OAPC started in fall 2015 on establishing a reporting format to monitor response times for all calls dispatched as emergencies. The expectation was for the processes to be in place by March 31, 2017.

- *finalize a provincial protocol for ST-segment elevation myocardial infarction (STEMI) heart attacks—such as ensuring that all ambulances are equipped with the appropriate type of electrocardiogram (ECG) machines, that paramedics are appropriately trained to interpret the ECG test results, and that paramedics are directed to conduct such tests for all potential STEMI patients—and implement electronic* *prompts throughout the dispatch system for transporting these patients to specialized care centres; and*

Status: In the process of being implemented by March 31, 2016.

Details

The Cardiac Care Network, an organization funded by the Ministry that works with Ontario hospitals to provide cardiac services, is the lead on the provincial STEMI protocol. The Network provided the Ministry with an implementation plan for the STEMI protocol in December 2014. A STEMI-Emergency Medical Services Working Group was established to standardize STEMI care across Ontario, and has produced a draft Ontario STEMI Bypass Protocol in March 2015, which was shared with the Ministry. The Ministry advised us that the Cardiac Care Network is finalizing this draft protocol in consultation with emergency medical services stakeholders, including the Ministry's Medical Advisory Committee, the Ontario Base Hospital Group, the OAPC, Ornge air ambulance and Toronto Paramedic Services. The protocol is expected to be completed by fall 2015. The Ministry advised us that, once the provincial STEMI protocol has been finalized and accepted, each dispatch centre will incorporate STEMI dispatch information into its local operating practice by March 31, 2016 to determine where to transport patients.

The Ministry's Medical Advisory Committee recommended in May 2014 that all ambulances be equipped with a 12-lead electrocardiogram-capable machine. In January 2015, the Ministry approved and released the updated Advanced Life Support Patient Care Standards and Provincial Equipment Standards for Ontario Ambulance Services, which include 12-lead electrocardiogram-capable machines as mandatory equipment. The updated standards come into effect on February 1, 2016.

Base hospitals ensure paramedics know the applicable patient care standards and are trained to perform delegated controlled acts. The Ministry advised us that it expects that all paramedics employed by land ambulance services will have completed all required training relating to its Paramedic Service and Regional Base Hospital Program and be authorized to use 12-lead electrocardiogram-capable machines.

- *consistently account for the time spent by an ambulance at a hospital until the patient is accepted, based on patient urgency and any additional time the ambulance spends at hospital until it is free to return to service.*

  Status: Fully implemented.

Details

All dispatch centres now consistently record the amount of time an ambulance spends at a hospital, from arrival to when the patient is accepted and the ambulance departs, in the Computer Aided Dispatch system. This was introduced and implemented by January 2015 across the province (with the exception of Niagara, which was completed in June 2015). This "paramedic transfer of care time" information is now available to the Ministry and is being made available to paramedic services through the Ministry's dispatch reporting system. This will enable the Ministry to measure and report on how much time paramedics spend with the patient at a hospital, after the patient transfer, prior to departing from the hospital, and on activities such as cleaning the ambulance.

To ensure that Ontarians have access to relevant information on the performance of dispatch centres and municipal land ambulance services, the Ministry, in conjunction with municipal land ambulance services and base hospitals, should:

- *establish other key measures (including outcome measures) of land ambulance performance (for example, total ambulance response time from call receipt to arrival at the patient location, and the survival rates of patients with certain conditions such as stroke and cardiac arrest); and*

  Status: In the process of being implemented by March 31, 2016.

Details

The Ministry's Medical Advisory Committee was engaged in December 2013 to advise on performance measures for ambulance patients. In May 2014, the Ministry received evidence-based performance measures that had been endorsed by the Medical Advisory Committee. These included:

- medical performance measures, including the percentage of cardiac arrest patients discharged from hospital as neurologically independent;
- surgical performance measures, including the percentage transported to the designated trauma centre (i.e. usually the closest hospital with specially trained physicians and specialized equipment); and
- airway performance measures, including the percentage of intubations that were successfully performed.

At the time of our follow-up, the Ministry informed us that the next step is to have discussions with the OAPC regarding the measures endorsed by the Medical Advisory Committee and other possible measures, such as total ambulance response times. The discussions with the OAPC are necessary to determine the feasibility of gathering the required data and obtaining feedback on which measures are worthwhile for public reporting. Discussions with the OAPC commenced in fall 2015 and a decision on which key measures to report on was expected by March 31, 2016.

- *publicly report on these indicators and on response times for each municipality in a consistent and comparable format (for example, separately by urban and rural areas, as well as by patient urgency levels).*

Status: In the process of being implemented by March 31, 2017.

Details

The Ministry informed us that once performance metrics have been determined (expected by March 31, 2016), it will begin collecting the information related to those measures to allow for public reporting starting the year ending March 31, 2017.

Dispatch

Recommendation 2

To ensure the most efficient use of land ambulance services, the Ministry of Health and Long-Term Care should:

- *assess the effectiveness of the two protocols used in Ontario to prioritize calls and dispatch ambulances, including comparing the dispatch priority determined by the protocols with the paramedics' evaluation upon reaching the patient, and adjusting the protocols where needed to reduce excessive over-prioritization of patients.*

Status: In the process of being implemented by September 30, 2018.

Details

At the Ministry's request, the Sunnybrook Centre for Pre-Hospital Medicine researched the two protocols used in Ontario to prioritize 911 calls—the Dispatch Priority Card Index II, which is used in 20 dispatch centres and the Medical Priority Dispatch System, which is used in Niagara and Toronto—and concluded that the Medical Priority Dispatch System is a more accurate system.

In December 2014, the Provincial/Municipal Land Ambulance Dispatch Working Group—created by the Ministry to provide advice on improving the dispatch process—met for the first time. The working group is composed of ministry staff, as well as municipal representatives from the OAPC and the Association of Municipalities of Ontario. The working group's report was expected to be received by the Minister by fall 2015 and to include recommendations to improve the dispatching of ambulance services and the prioritization of emergency calls. The Ministry anticipated it would to take up to three years to plan and complete improvements to ambulance dispatch triaging in Ontario.

- *consider updating software that assists dispatchers in choosing the best ambulance to dispatch so that it identifies both the ambulance with the shortest actual travel time and the most appropriate one in order to maintain emergency coverage across the entire geographic area involved, as two municipalities have already done; and*

  Status: In the process of being implemented by March 31, 2017.

Details

The Ministry informed us that, as of 2014, five of the 22 dispatch centres (Toronto, Niagara, Ottawa, Georgian and Mississauga) used tools to identify the most appropriate ambulance to dispatch so that emergency coverage was maintained.

In December 2014, the Ministry began upgrading the Computer Aided Dispatch system at some dispatch centres. Once upgraded, the system will support the Routable Streets module, which provides dispatchers with more precise ambulance travel times to the call location based on actual streets. This will enable dispatch centres to choose the best ambulance available to dispatch based on the fastest predicted travel time, while still maintaining emergency coverage. The Ministry advised us that the installation of the Routable Streets module will be phased in to minimize disruption to dispatch centres' operations and completed by March 31, 2017.

- *work with dispatch centres to best match staffing with call volumes, with a view to reducing the number of staff handling significantly more calls than the Ministry's target, and thereby helping to reduce the potential for delays and errors.*

  Status: In the process of being implemented by March 31, 2017.

Details

As a result of an analysis of dispatch centre call volumes to identify areas where more dispatch staffing was needed, the Ministry added 22 dispatch staff positions to certain ministry dispatch centres between August 2014 and March 31, 2015.

The Ministry informed us it was waiting until March 31, 2016, to analyze the impact of the new staff on the number of calls handled by individual staffers. The Ministry also indicated it plans to assess the benefits of load balancing, which would allow calls to be transferred from high-volume dispatch centres to lower-volume dispatch centres. The Ministry expects that any additional initiatives taken to address this recommendation will be fully in place by March 31, 2017.

To better enable patients experiencing cardiac arrest to receive treatment as soon as possible, the Ministry should incorporate information on the locations of publicly available automated external defibrillators (AEDs) into dispatch protocols.

Status: Fully implemented.

Details

In January 2014, the Ministry asked its Medical Advisory Committee to assess the efficiency of incorporating AED location information into dispatch protocols. The Medical Advisory Committee agreed that a dispatch-based registry of available AEDs would be beneficial. The Ministry informed us that in August 2014, it started integrating AED information (provided by municipalities) into the Computer Aided Dispatch system. The AED information includes detailed directions that dispatchers can give to callers on how to immediately find available public AEDs.

As of June 2015, the Ministry had completed the integration of AED information at 13 of the 22 dispatch centres in Ontario and had a process in place at all dispatch centres to incorporate AED location information provided by municipalities. The Ministry informed us that while they are providing the necessary infrastructure to allow each municipality and dispatch centre to incorporate AED information into the Computer Aided Dispatch system, it is up to each municipality to maintain an accurate AED registry. The Ministry indicated that the success of this new dispatch process is dependent on the availability of up-to-date listings of AED locations, which is the responsibility of municipal Public Access Defibrillation Programs.

Alternatives to Transporting Patients to Emergency Rooms

Recommendation 3

To ensure that patients receive necessary care that meets their needs and that patients are not unnecessarily transported to an emergency department, the Ministry of Health and Long-Term Care should consider introducing emergency room diversion policies, similar to those used in other jurisdictions, that meet patients' care needs by, for example, providing referrals to Telehealth for telephone medical advice, and treating at the scene.

Status: In the process of being implemented by March 31, 2016.

Details

While the Ministry told us that it was receptive to municipalities, hospitals and Local Health Integration Networks initiating additional emergency room bypass protocols, the Ministry had not introduced additional emergency room diversion policies for land ambulance services. The Ministry advised us that it was addressing this recommendation instead by funding programs at municipalities to help reduce calls for emergency services.

In January 2014, the Ministry announced the Community Paramedicine project, the goal of which was to reduce the number of calls for emergency 911 services. The project would have paramedics apply their training and skills in ways other than providing emergency response, such as helping seniors and other patients manage chronic conditions.

In March 2014, the Ministry began accepting applications from municipalities for funding of their community paramedic initiatives. The Ministry received more than 60 applications, 30 of which were approved for funding in August 2014, totalling $5.8 million. Examples of funded initiatives include a program in Norfolk for paramedics to perform home visits and set up wellness clinics in social housing buildings, as well as a program in Toronto where paramedics visit seniors in Toronto Community Housing Corporation buildings with a history of recurring 911 use, in an effort to proactively reduce emergency room visits.

Each initiative selected received start-up funding and was expected to operate without ministry funding after one year. After this one-year period, the municipalities reported back to the Ministry on the benefits of their community paramedicine initiatives. The Ministry informed us that, even though it had been expected that the initiatives would be self-sufficient after the first year, it was considering allocating an additional $2 million to some of the initiatives to help them continue their programs until they can be run by the community without ministry funding. The Ministry also expected to receive all reports related to the community paramedicine initiatives by fall 2015, which would allow it to conduct final program evaluations by March 31, 2016.

The Ministry, in conjunction with the municipal land ambulance services, should also evaluate the cost-effectiveness of non-ambulance emergency response vehicles, including how many are needed and how best to use them to meet patient needs. The evaluation should include a study of practices in other jurisdictions with better utilization.

Status: Little or no progress.

Details

The Ministry hired a consultant in November 2014 to review the Land Ambulance program, identify differences in ambulance service levels and costs for similar populations and geographic areas, and help the Ministry identify potential areas of improvement to reduce service variance across the province. The consultant was expected to use knowledge of best practices from other jurisdictions in developing recommendations.

The consultant conducted four web-based workshops, communicating with 14 municipalities in total. The cost-effectiveness of using non-ambulance emergency response vehicles was among the issues discussed.

The consultant provided a report to the Ministry in July 2015. The report noted differences in the usage of non-ambulance emergency response vehicles between municipalities but did not provide any analysis on the current state of their usage. The consultant noted that only "some municipalities took a deliberate approach to determine the appropriate fleet mix to strike the balance between operational efficiency versus the provision of the most appropriate care to the local residents," with other municipalities not determining the right mix between ambulance and non-ambulance emergency response vehicles. Some municipalities had not determined the most cost-effective mix of ambulance and non-ambulance emergency response vehicles to ensure service can be provided while still offering appropriate care to local residents. The report recommended that greater analysis be done by the Ministry to determine if there can be a better use of non-ambulance emergency response vehicles to reduce overall operating costs. The Ministry plans to share the report with the OAPC by fall 2015. At that time, next steps were to be determined on how to address the report's recommendations. The Ministry advised us that it will continue to work with municipalities to determine the most cost-effective use of non-ambulance emergency response vehicles and that an evaluation would be completed by March 31, 2017.

Quality Assurance

Recommendation 4

To promote better-quality land ambulance dispatch services and patient care by paramedics, the Ministry—working in conjunction with municipalities where applicable—should:

- *require independent unannounced reviews of calls received by dispatch centres to ensure that they are being appropriately handled by all dispatch staff, including timely feedback to staff to prevent recurring problems, and obtain summary information on these reviews in order to identify any systemic issues;*

  Status: In the process of being implemented by March 31, 2017.

Details

Starting April 1, 2014, the Ministry required a new process be implemented at all dispatch centres that involved the unannounced review of dispatchers' handling of calls. Staffers who are reviewed are expected to have timely follow-ups with supervisors, who will tell them if any improvements are needed in their taking or dispatching of calls. A quarterly summary of calls for each region is now produced that contains performance statistics, as well as the provincial average for the previous four quarters. The summary also identifies common issues occurring among dispatch centres.

As of September 1, 2015, more than half of the dispatch centres did not have independent quality program officers conducting call reviews. Instead, reviews of dispatch staff continued to be performed by management staff (such as dispatch centre managers), potentially incentivizing them not to report poor call handling by staff they directly manage, since such reports could impact their own performance rating. The Ministry informed us that it was still considering various strategies to ensure that independent reviews of call handling are performed at each dispatch centre and that this recommendation will be fully addressed by March 31, 2017.

- *consider establishing guidelines on the desired proportion of advanced-care paramedics (ACPs) and ensure that ACPs receive sufficient ongoing experience to retain their proficiency;*

  Status: In the process of being implemented by March 31, 2016.

Details

The Ministry told us that, under the *Ambulance Act*, municipalities are responsible for deciding on the composition of their paramedic workforces based on the needs of each community and the resources that are available. The Ministry cannot dictate the proportion of advanced-care paramedics in each municipality, and did not consider it appropriate to establish guidelines that municipalities must follow.

The Ministry can establish minimum training requirements for ACPs, and is in the process of updating the Maintenance of Certification Standard for advanced-care paramedics. It informed us that updates will address our 2013 recommendation for minimum training requirements, including a certain number of hours with patients, as well as ongoing medical training.

The Ministry expected its internal update of the Maintenance of Certification Standard to be completed and shared with stakeholders (including the Ontario Base Hospital Group, the Medical Advisory Committee and the OAPC) by fall 2015. The Ministry advised us that it normally takes six weeks for stakeholders to collect feedback from their members and prepare for discussions with the Ministry. The stakeholder consultations are to be completed in time for the Standard to be released by March 31, 2016.

- *ask base hospitals to periodically review paramedics' basic life support skills, since these skills are used on every ambulance call;*

  Status: Little or no progress.

Details

The Ministry has the authority to require base hospitals to review paramedics' basic life support skills; however, at the time of our follow-up the Ministry was waiting on a government decision on whether to create a College of Paramedicine to regulate paramedics in Ontario. In December 2013, the Health Professions Regulatory Advisory Council (established under the *Regulated Health Professions Act, 1991* with a statutory duty to advise the Minister on regulatory matters for health professions in Ontario) recommended to the Ministry that the government not allow self-regulation of paramedics as it was not in the public interest. Despite determining that self-regulation was not in the public interest, the Advisory Council identified some areas that the Ministry might want to consider overseeing.

The OAPC did not support the advisory council's recommendation. In May 2014, its board issued a resolution supporting the creation of a College of Paramedicine, which it felt would better provide for the safety and care of patients in Ontario.

At the time of our follow-up, the Ministry could not provide an estimated date of when a decision would be made by the government on whether to create a College of Paramedicine.

Starting in spring 2015, the Ministry began a jurisdictional comparison of quality assurance programs for paramedics' basic life support skills found in other countries. The Ministry expected the comparison to be completed by December 2015. The comparison will be used to initiate discussions with stakeholders, such as the OAPC, and assist the Ministry in determining whether or not it wants to recommend that base hospitals should periodically review paramedic basic life support skills.

- *ensure that paramedics provide patient information documents (including all available test results) to emergency departments in time for the information to be useful for making patient-care decisions; and*

  Status: In the process of being implemented by March 31, 2016.

Details

In September 2014, the Ministry started updating the Ambulance Call Report Form, the Ambulance Call Report Completion Manual and the Ambulance Service Documentation Standards. The updated standards were shared with stakeholders, including representatives from the Ministry's

Medical Advisory Committee, the Ontario Base Hospital Group, the OAPC, Ornge air ambulance and Toronto Paramedic Services, in January 2015 to obtain their input before new standards were implemented.

The updated standards require that, for each assignment that includes transporting a patient to the hospital, the paramedic must provide a completed Ambulance Call Report to the hospital before leaving the hospital and the assignment ends, or by the end of the paramedic's shift. The Ambulance Documentation Standards set out the information that is required on the Ambulance Call Report, including general information on when and why an ambulance arrived at a location, details of any patient assessment and of the treatment provided prior to arrival at a hospital. The updated standards also require that biometric data, including electrocardiogram results and cardiopulmonary resuscitation (CPR) processes, be collected and included in the Ambulance Call Report when applicable.

At the time of our follow-up, the Ministry informed us it is targeting March 31, 2016, as the date the updated standards will be released and effective.

- *ensure that processes are in place to enable municipal land ambulance services to readily access dispatch information required for patient-care trend analyses and to periodically analyze hospital outcomes for ambulance patients.*
  Status: In the process of being implemented by March 31, 2016.

Details

The Ministry created the Provincial/Municipal Land Ambulance Dispatch Working Group in December 2014 to examine potential improvements to parts of the dispatch process such as medical triaging and access to real-time ambulance data, including the time taken by ambulances from dispatch to transfer to a hospital. The working group included stakeholders from the OAPC and the Association of Municipalities of Ontario.

The Ministry asked the working group to standardize information sharing protocols between municipalities and dispatch centres and told it to ensure that its improvements address the recommendations we made as part of our *2013 Annual Report*.

The Ministry said it expects to receive the working group's report by fall 2015. The Ministry anticipates its recommendations relating to the standardization of information sharing between municipalities and dispatch centres will be considered and implemented by March 31, 2016.

Ministry Funding to Municipalities

Recommendation 5

To ensure a balanced land ambulance system throughout Ontario, the Ministry should:

- *determine—for example, through a review of municipalities' ambulance deployment plans and service costs—why there are differences in ambulance service levels and costs for similar populations and geographic areas; and*
  Status: Fully implemented.

Details

As stated earlier, the Ministry hired an external consulting firm in November 2014 to independently review the land ambulance program to determine why there were differences in ambulance service levels and costs for similar populations and geographic areas. The consultant's work commenced in December 2014.

Data was collected by the external consultants from 14 of the 50 municipalities. This data was analyzed by the consultant and verified with the municipalities as part of four workshops conducted with the municipalities in February and March 2015 to better understand variances and potential drivers for these variances. The consultant provided their report to the Ministry in July 2015. The report stated that "while differences [in service levels between municipalities] were observed, throughout the study, there is no evidence of imbalance in the service system in such a state that can be described as critical". The consultant recommended utilizing process improvement reviews, as was done in one Ontario municipality, and collaboration between local hospitals, as was accomplished in another municipality, to reduce time spent by ambulances at hospitals and improve service delivery. The consultant concluded that there were limited opportunities for operational efficiencies that would result in cost savings. This was primarily due to all municipalities using unionized staff with relatively similar wages across Ontario.

However, the report also noted that improved call triaging could reduce costs overall in urban municipalities. Therefore, the consultant recommended that the province work with municipalities (especially larger urban ones) to increase the accuracy of dispatch systems' prioritizing of calls. The Ministry is planning to address this recommendation in the Provincial/Municipal Land Ambulance Dispatch Working Group's report, expected in fall 2015. The Ministry is planning to share the consultant's report with the OAPC at that time and will then decide how to address the consultant report's recommendations.

- *develop processes, such as incentives, to promote efficient ambulance service delivery—including minimum service levels or benchmarks—especially where differences exist.*
  Status: Little or no progress.

Details

As identified above, the consultant provided a report reviewing the land ambulance program to the Ministry in July 2015. The consultant noted that the Ministry's current performance measures do not reflect the key outcomes of land ambulance services and recommended that the Ministry review the current measures. The Ministry plans to share the consultant's report with the OAPC in fall 2015 and then develop processes to promote more efficient land ambulance services by March 31, 2017.

The Ministry should also clearly communicate planned funding levels to municipalities in time to support municipal planning processes.
Status: Fully implemented.

Details

The Ministry had discussions with the OAPC in July and August 2014 regarding the proposed wording of a 2015 planning document that was to be shared with each municipality. The Ministry obtained the OAPC's input on the document and provided it to municipalities in August 2014. The document explained how the 2015 planned funding would be calculated, taking into account increases for salaries and inflation. The document also included a spreadsheet, which a municipality could use to determine its 2015 planned funding by using its 2014 approved operating budget. Municipalities must provide their forecasted expenditures to the Ministry on an annual basis.

The Ministry informed us that, going forward, the planning document will be provided to each municipality in July. Municipalities will be expected to identify their forecasted expenditures and return the document to the Ministry by August 31 of that same year. The 2016 planning document was sent out to municipalities in July 2015.

Chapter 4

Section
4.05

Ontario Power Generation Human Resources

Follow-up to VFM Section 3.05, *2013 Annual Report*

RECOMMENDATION STATUS OVERVIEW					
	# of	Status of Actions Recommended			
	Actions Recommended	Fully Implemented	In Process of Being Implemented	Little or No Progress	Will Not Be Implemented
Recommendation 1	3	2	1		
Recommendation 2	2		2		
Recommendation 3	3	2	1		
Recommendation 4	2	2			
Recommendation 5	2		2		
Recommendation 6	2	2			
Total	**14**	**8**	**6**	**0**	**0**
%	**100**	**57**	**43**	**0**	**0**

Background

Ontario Power Generation (OPG), a corporation owned by the province, is one of the largest power generators in North America. However, the amount of power OPG produces has decreased by 24% over the last decade because the demand for electricity has decreased, coal-fired plants have closed and there is more private-sector involvement in new power generation.

Despite the declining electricity demand, electricity prices have been rising in Ontario. Given that OPG generates about 60% of Ontario's electricity, its operating costs have a significant impact on the cost of electricity, particularly with respect to labour costs. In 2014, labour costs were about $1.6 billion (compared to $1.7 billion in 2012), or 62% (64% in 2012) of its total costs for operations, maintenance and administration.

OPG initiated its Business Transformation Project in 2010, with a target of reducing staffing levels by 2,000 employees through attrition by 2015. While OPG had made some progress in reducing its overall staffing levels at the time of our 2013 audit, we found several areas where its human resource management and compensation and benefit practices needed improvement. Many of our concerns were echoed by respondents to our anonymous survey of more than 800 OPG staff.

Some of the key observations in our 2013 audit were as follows:

- While OPG's overall staffing levels had gone down about 8.5% (to 11,100 in 2012 from 12,100 in 2005), the size of its executive and senior management group had increased by 58% (to 238 in 2012 from 152 in 2005).
- OPG had rehired some former employees, almost all of them shortly after they had left OPG, indicating ineffective knowledge transfer and succession planning. Some continued to receive significant allowances and Annual Incentive Plan (AIP) awards, and some had already drawn their pensions in lump sums after they initially left.
- Even after staff reductions at nuclear facilities starting in 2011, the area of maintenance, janitorial and custodial services was still staffed at a level 170% above the industry benchmark in 2013. Meanwhile, some operational functions were significantly understaffed, including nuclear plant operations, while their associated support functions were overstaffed.
- We found areas of non-compliance in OPG's recruitment and security clearance processes. About 700 pairs or groups of employees lived at the same address and appeared likely to be related. However, OPG had no documentation to show whether family members of staff had been hired through the normal recruitment process. As well, more than 50% of OPG staff in our sample, including senior staff with access to confidential nuclear information, had never obtained the required security clearances or had expired clearances.
- OPG gave Annual Incentive Plan awards to all non-unionized staff, ranging from $1,600 to $1.3 million, depending on the job level, base salary and Annual Incentive Plan score on a scale of 0 to 4. However, high scores were given much more frequently to staff in senior positions and there were a number of cases with limited documentation to support the score achieved.
- Earnings were significantly more generous at OPG than for comparable positions in the Ontario Public Service (OPS), and many of OPG's senior executives earned more than most deputy ministers. As well, since 2005, OPG's employer-employee pension contribution ratio has been around 4:1 to 5:1, significantly higher than the 1:1 ratio for the OPS. According to the actuarial valuation, OPG's pension deficit was about $555 million as of January 1, 2011.
- Some of OPG's employees received generous benefits that seemed questionable. For example, an employee received over $392,000 in relocation benefits from OPG, on top of the proceeds of $354,000 from the sale of his old residence. Another employee who moved further away from his new work location received over $80,000 in housing and moving allowances.
- The number of OPG staff earning more than $50,000 in overtime pay per year had doubled since 2003. Planned nuclear outages had resulted in high overtime pay, especially for inspection and maintenance technicians.

We made a number of recommendations for improvements and received commitments from OPG that it would take action to address our recommendations.

Standing Committee On Public Accounts

In November 2014, the Standing Committee on Public Accounts (Committee) held a public hearing on our 2013 OPG Human Resources audit. In May 2015, the Committee tabled a report in the Legislature resulting from this hearing. The Committee endorsed our findings and recommendations. The Committee made eight additional recommendations and asked the OPG to report back by the end of August 2015. The Committee's recommendations and follow-up on their recommendations are found in Chapter 7.

Status of Actions Taken on Recommendations

OPG provided us with information in the spring and summer of 2015 on the current status of our recommendations. According to this information, almost 40% of the recommendations we made in our *2013 Annual Report* have already been fully implemented. These recommendations relate to overtime, staff training and the outsourcing of information technology services. For example, OPG has implemented new policies to strengthen its overtime pre-approval process, ensure overtime approvals are carried out as per the approval authority and facilitate the monitoring and tracking of overtime worked so as to minimize overtime costs. To reduce overall staff training costs, OPG has eliminated redundant training, compared its yearly long nuclear qualification training programs to conform to industry standards, realigned training contents to job requirements, deactivated or converted some courses to computer-based training, and instituted management review of training attendance reports. OPG has followed an open and competitive process for its information technology services agreements to ensure fairness, accountability and value for money.

OPG has also made significant progress on all the remaining recommendations, concerning staffing, compensation, performance management, succession planning and recruitment practices. In particular, OPG has implemented a monthly reporting of key human resources metrics to closely monitor all staffing levels. New policies and systems were also implemented to document performance objectives, improve the linkage between performance and awards, align the ratio for pension contribution and employee relocation benefits with the Ontario Public Service, monitor compliance with security clearance and recruitment processes, and improve knowledge retention and transfer at OPG. Some work is still needed to address our recommendations in areas that affect unionized staff and are therefore subject to collective bargaining.

Subsequent to our *2013 Annual Report*, the Ministry of Energy requested the Ontario Internal Audit Division (OIAD) to monitor OPG's progress in implementing our recommendations. We have reviewed OIAD's report as part of our follow-up review. The OIAD concluded that, overall, OPG had made reasonable progress in implementing most of the recommendations, and this is in line with our assessment of OPG's progress to date.

The status of each of our recommendations is as follows.

Staffing Levels and Recruitment

Recommendation 1

To ensure that staffing levels are reasonable and that it has the right people in the right positions to meet its business needs, Ontario Power Generation should:

- *evaluate and align the size of its executive and senior management group with its overall staffing levels;*

  Status: Fully implemented.

Details

The OPG Business Transformation Project was initiated in 2010 to reduce staffing levels by 2,000 employees through attrition by 2015. In our 2013 audit, we found that OPG's overall staffing levels had decreased by 8.3% from 2005 to 2012, but that the size of its executive and senior management group had increased by 58%.

During our follow-up, we found that OPG reduced the number of its employees by 2,658, as of March, 2015. The size of its executive and senior management group also decreased by 8.7% from 2013 to 2015. In 2013, OPG implemented a monthly reporting of key human resources metrics to enable senior management and the Board of directors to closely monitor all staffing levels. In December 2014, OPG and a consulting firm jointly conducted a staffing assessment and concluded that OPG compares well with industry benchmarks and that its senior management staffing level is appropriate for an organization of its scope and complexity. However, the report also raised a number of opportunities for improvements, such as consolidating the number of direct reports to the CEO, conducting an organizational review of the finance function and reducing the number of human resource vice presidents. A majority of these opportunities has already been addressed.

- *address the imbalances between overstaffed and understaffed areas in its nuclear operations; and*

  Status: In process of being implemented by December 2017.

Details

In our 2013 audit, we reported that OPG's nuclear staffing levels were 8% above the benchmark, with 23 overstaffed areas and 16 understaffed areas.

In 2014, a benchmarking study conducted by a consultant engaged by OPG indicated that nuclear staffing levels were now only 4% above the benchmark, rather than 8% above it. OPG has incorporated into its business plan targets to further adjust the staffing imbalances and it expects to eliminate the benchmark gap by 2017.

- *review and monitor compliance with its recruitment and security clearance processes.*

  Status: Fully implemented.

Details

In our 2013 audit, we identified about 10% of OPG employees who resided at the same address, indicating that they were most likely members of the same family. However, when we examined their files, OPG had no documentation to show whether they were hired through the normal recruitment process. We also found that more than 50% of OPG staff in our sample, including senior staff with access to confidential nuclear information, either had never obtained security clearances or were working with expired clearances.

Since our audit, OPG has centralized its recruiting function to improve process efficiency, and it has implemented new quarterly compliance reviews to monitor the compliance with hiring procedures. OPG has also made a number of changes to its hiring policies, including requiring a hiring panel of two or more people to conduct interviews, amending the code of conduct to include conflict of interest in hiring practices, and requiring that before a candidate is offered a job, the hiring is reviewed to make sure proper procedures were followed. In order to train managers about these new hiring policies and procedures, OPG has developed education and support materials, including a compliance checklist.

With respect to security clearance processes, in 2014, OPG implemented a new tiered risk-based security clearance structure to streamline security clearance requirements and processing times. OPG also developed and implemented a new security system in 2014 and it has many features that can enhance the compliance monitoring process. For example, the system can warn management if an employee's security status is something other than what is required. The system can also identify expired clearances so that security and emergency services staff can send notifications to employees and their respective managers.

In audit reports issued in the fall of 2015, OPG's internal audit assessed as generally effective the design and operational effectiveness of improvements made to recruitment, and to employee security processes and controls.

Compensation

Recommendation 2

To ensure that employees receive appropriate and reasonable compensation in a fair and transparent manner, Ontario Power Generation should:

- *make its Annual Incentive Plan (AIP) more effective by creating a stronger link between awards and staff performance based on documented annual evaluations;*

  Status: In process of being implemented by April 2016.

Details

In 2013, we found that OPG gave AIP awards up to $1.3 million to all non-unionized employees based on job level, base salary level and performance score achieved. However, we found that a number of cases had limited documentation to support the score achieved. We also noted that distribution of performance scores had been skewed toward executives and senior management staff. On average, 67% of executive and senior management staff received high AIP scores from 2010 to 2012. However, only 24% of staff in lower job bands received high scores during the same period.

Since then, OPG has implemented several new policies and procedures to create a stronger link between awards and staff performance. According to these new policies, staff are required to document their performance objectives annually by March 31 of each year. Performance objectives are required to include both quantitative and qualitative metrics and be more specific, measurable, achievable, realistic and time-bound (SMART) so staff performance can be adequately assessed. With respect to staff evaluations, OPG has replaced the old four-point rating scale with a more detailed seven-point rating scale for better differentiation of performance levels. OPG has implemented a new calibration process for performance scores, which requires the executive leadership team to review and adjust performance scores of management employees to ensure ratings are relative to job performance across the organization and that scores are broadly distributed. OPG has also made improvements to its performance reports so that achievements can be more closely linked to performance metrics. All OPG employees have already completed and documented their performance objectives for 2015 in the Performance Planning and Review system. OPG informed us that its internal audit will conduct an assessment of performance objectives in April 2016 to determine if they adequately meet the SMART criteria.

- *review salary levels and employee benefits, including pensions, to ensure that they are reasonable in comparison to other similar and broader public-sector organizations and that they are paid out in accordance with policy, adequately justified and clearly documented.*

  Status: In process of being implemented by December 2015.

Details

In 2013, we reported that total earnings of employees at OPG were significantly higher than those of comparable positions in the Ontario Public Service. We also found a number of cases where the annual base salaries of non-unionized staff exceeded the maximum set out in the OPG's base salary schedule by more than $100,000.

Subsequent to our 2013 audit, OPG engaged an independent consulting firm to review its compensation philosophy for the management group. The consultant concluded that while OPG's overall compensation principals are sound, its compensation structure is not tailored to each of the company's business segments. In response, OPG has implemented changes in 2015 so that compensation within business segment peer groups reflects their unique roles and responsibilities. The consulting firm also reviewed the effectiveness of the AIP and concluded that the range is generally in line with market practices. However, it asked OPG to consider reviewing the complexity of the balanced report card. In response, OPG implemented changes in 2014 to sharpen the focus on key performance metrics.

With respect to pensions, our 2013 audit reported that the employer-employee pension contribution ratio at OPG has been around 4:1 to 5:1, significantly higher than the 1:1 ratio for the Ontario Public Service.

At the time of our follow-up, OPG had reformed its pension plan for the management group to align with that of the Ontario Public Service. Under the new plan, management staff members have to contribute more to their pension and wait longer to retire with unreduced pension benefits. Management staff's pension contributions will increase starting in 2016, but a 1% increase has been phased in for new management staff as of 2014. OPG informed us that any pension changes affecting unionized staff are subject to collective bargaining. About 90% of OPG employees are represented by two unions: the Power Workers' Union (PWU) and the Society of Energy Professionals (Society).

At the time of our follow-up, OPG had completed negotiations with the PWU. As per the new collective agreement, employee contributions increased by 1% in 2015, and will reach 2.75% by 2017. PWU members will also have to wait longer to retire with unreduced pensions. As part of the negotiation, PWU members will also receive Hydro One shares.

Pension changes for employees represented by the Society were to be discussed in the collective bargaining process expected to begin in the fourth quarter of 2015.

With respect to employee benefits, our 2013 audit reported that OPG spent on average about $1.4 million each year on housing and moving allowances from 2009 to 2012.

Since then, OPG has revised its relocation policy for the management group to align with Ontario Public Service policy. As a result of the changes made to the management group's relocation policy, OPG was able to reduce the housing and moving allowance to $1.1 million in 2014 from $1.5 million in 2012. Relocation policy changes for members of the Society are to be discussed in the upcoming collective bargaining.

Use Of Non-Regular Staff And Contract Resources

Recommendation 3

To ensure that its non-regular and contract resources are used cost-efficiently, Ontario Power Generation should:

- *improve its succession planning, knowledge retention and knowledge transfer processes to minimize the need to rehire retired employees for extended periods;*

  Status: Fully implemented.

Details

In our 2013 audit, we found that OPG had rehired some of its former employees as temporary or contract staff mainly for the purpose of identifying, grooming and training successors. Some of them continued to receive significant amounts in allowances and AIP awards, and some had already drawn their pensions in single lump-sum payments upon leaving.

At the time of our follow-up, OPG had expanded succession plan programs for its management positions to improve its succession planning. OPG also introduced a formal process to identify critical at-risk roles so management can develop appropriate mitigation strategies and knowledge transfer plans. OPG also implemented a new procedure for rehiring of retirees that requires a minimum waiting period of one year between the time an employee retires and when that employee can be rehired, and then only with a maximum contract length of one year. Any such hire must also receive senior management approval. Exceptions may be made to accommodate employees in the nuclear field because of the limited availability of highly skilled workers. As a result of the revised policies and new controls, the number of retirees rehired has decreased since 2013. OPG's internal audit conducted an examination to determine the operating effectiveness of improvements made to the recruitment process, including adherence to the new policies on rehiring retired employees, and it concluded in its October 2015 audit report that the controls were generally effective.

- *conduct an open competitive process for outsourcing its information technology services before the current contract expires;*
  Status: Fully implemented.

Details

Our 2013 audit reported that OPG had signed a 10-year $1 billion contract with a private-sector vendor in 2001 to outsource its IT services. In 2009, OPG ended the contract early and renewed it for an additional six years at $635 million without going through an open competitive process.

Subsequent to our audit, OPG followed an open and competitive process for outsourcing its information technology services agreement. OPG put out a request for proposal in May 2014. Based on its evaluation, OPG selected the incumbent vendor to manage its IT services as of January 2016.

- *manage and monitor closely the hours reported by the contractors to avoid the risk of overpayment.*
  Status: In process of being implemented by December 2015.

Details

In 2013, we noted that the system that recorded contractor hours had not always been reconciled with supporting documents, something that could lead to inaccurate time inputs and overpayment to vendors. In response to our recommendation, OPG hired independent contract auditors in 2015 to review contractor hours and rates, and compliance with other contractual terms and conditions. The audit findings indentified potential overpayments to its vendors totalling $9.2 million. In response to these two reviews, OPG informed us that it will negotiate with its vendors for recoveries by fall 2015 and implement enhanced contractor payment controls in the fourth quarter of 2015.

Overtime

Recommendation 4

To ensure that overtime hours and costs are minimized and monitored, Ontario Power Generation should:

- *decrease overtime costs for outages by planning outages and arranging staff schedules in a more cost-beneficial way; and*
  Status: Fully implemented.

Details

Our 2013 audit reported that planned outages had resulted in high overtime pay, especially for inspection and maintenance (I&M) technicians, who are regular daytime employees that get overtime pay for being placed on schedules different from their normal working hours during outages.

Subsequent to our audit, OPG performed an economic assessment to determine whether overtime costs could be minimized by scheduling staff in a more cost-beneficial manner, including regular work shifts that cover 24 hours. OPG concluded that the overall overtime cost could be reduced by creating shift schedules for I&M technicians to be used specifically during outages, and it started implementing such shift schedules in mid 2014. OPG has also imposed overtime limits for the I&M work group. As a result, 265 of 280 unionized staff in the I&M work group were placed on shift schedules that reduced the overtime cost of the group to $11.1 million in 2014 from $21.6 million in 2013.

- *review other ways to minimize overtime.*
  Status: Fully implemented.

Details

Our 2013 audit reported that total overtime costs were about $148 million in 2012, and the number of employees earning more than $50,000 in overtime pay had doubled since 2003. We also found that each department used different methods for pre-approving overtime, and in most departments verbal approvals were sufficient.

OPG has implemented a number of additional controls to minimize the overtime cost and the risk that overtime pay would be abused. To strengthen the pre–approval process, OPG now requires documented pre-approval prior to overtime being worked, and line managers are required to keep records of these pre-approvals. The Finance Department is required to provide weekly reports of employees' overtime to department managers so they can track the hours employees work and take action to limit excessive overtime. The Finance Department is also responsible for reviewing overtime to ensure approvals are given only by those authorized. As well, senior managers receive reports that show variances from approved overtime budgets. As a result of these enhanced controls, including improvements in scheduling staff for planned outage maintenance, OPG's total overtime costs decreased to $127.5 million in 2014 from $148 million in 2012. The number of employees who earn more than $50,000 in overtime pay decreased to 230 in 2014 from 520 in 2012.

Absenteeism

Recommendation 5

To minimize the cost of sick leaves and avoid potential misuses or abuses of sick leave entitlements, Ontario Power Generation should:

- *review its sick leave plan for staff who joined prior to 2001;*

  Status: In the process of being implemented by December 2015.

Details

In our *2013 Annual Report*, we reported that OPG's sick leave plans were relatively generous compared to those of the Ontario Public Service. In particular, unionized staff that began working for OPG prior to 2001 were entitled to not only carry over unused sick days from one year to the next but also to restore their used sick days every five years. For example, an employee who took four sick days in Year 1 will receive these four sick day credits back after five years of service in addition to the normal number of sick leave credits he or she is entitled to for the year. As of December 31, 2012, almost half of OPG's staff were still under the old plan and each of them had, on average, restored and accumulated about 162 sick leave credits with full pay and 191 sick leave credits with 75% pay.

During our follow-up, OPG indicated that it did review and assess the sick leave plans for staff who joined prior to 2001 in the context of overall benefits and compensation. However, OPG was unable to make any changes to the sick leave provisions in the current round of collective bargaining with the PWU, which represents a majority of OPG's workforce. OPG is expected to begin the negotiation process with the Society in the fourth quarter of 2015.

- *monitor the results of sick leave management programs to identify and manage unusual sick leave patterns.*

  Status: In process of being implemented by December 2015.

Details

In 2013, we noted that some of OPG's key sick leave management programs were not being used as effectively as they could be. While we noted no abuses of sick leave credits in our sample testing, there was a risk of significant accumulation and abuse of sick leave credits.

Since then, OPG has designed an enhanced sick leave management program that requires supervisors to speak to employees who do not meet attendance expectations to correct attendance concerns. This new program was to be implemented in December 2015. As part of the sick leave management program, OPG will also have an automated email notification tool to identify and manage unusual sick leave patterns. This tool was implemented for management staff in 2014, and OPG is planning to implement it for unionized staff in the fourth quarter of 2015.

With respect to long-term disability, OPG has contracted a third-party service provider to manage the disability management program to ensure that a centralized, standardized and rigorous process is followed to ensure employees' timely return to work when possible.

Staff Training

Recommendation 6

To ensure that its employees are adequately trained for their jobs, Ontario Power Generation should:

- *continue to review and monitor the adequacy, quality and completion rates of its nuclear training programs in order to identify areas for improvement, and address the areas that have already been identified;*

  Status: Fully implemented.

Details

In our 2013 audit report, we noted that the completion rate for the authorized nuclear operator training program at OPG had been around 56%, which was below both its own workforce planning goal (70%) and the completion rate (75%) of the U.S. organization OPG chose to use as a benchmark for itself.

Subsequent to our audit, OPG implemented a number of changes to its nuclear training programs to increase completion rates and reduce overall program cost. These changes include streamlining training programs and eliminating redundant training courses to optimize the qualification process for nuclear operators and authorized nuclear operators. As a result of these initiatives, the completion rates for these programs have increased to 65% in 2014 from 56% in 2011. OPG has also saved $2.8 million annually by eliminating redundant refresher training.

- *review the nature and timing of its mandatory training requirements as well as its delivery methods for hydro/thermal staff to ensure they are meeting business needs cost-effectively.*

  Status: Fully implemented.

Details

At the time of our audit, we found that 30% of the courses that OPG required had not been completed by employees in 2012. As well, 4,500 (21%) of the 21,000 scheduled courses for trainees were cancelled, 1,400 (31%) of which without any reason.

In response to our recommendations, mandatory training requirements have been streamlined and attendance monitoring is in place. OPG has also reviewed its training program to realign the contents to job requirements. One hundred and sixty courses were either deactivated or converted to computer-based training. Reports on training attendance are now reviewed by the senior vice president of Hydro Thermal Operations with his management team. As a result, the number of cancellations has decreased to 919 (10%) of the 9,133 total scheduled courses. Of the 919 cancelled courses, the number cancelled without any justification decreased to 104 (11%) since 2012.

Chapter 4

Section

4.06 Private Schools

Ministry of Education

Follow-up to VFM Section 3.06, *2013 Annual Report*

RECOMMENDATION STATUS OVERVIEW

	# of Actions Recommended	Status of Actions Recommended			
		Fully Implemented	**In Process of Being Implemented**	**Little or No Progress**	**Will Not Be Implemented**
Recommendation 1	7	4	1		2
Recommendation 2	1	1			
Recommendation 3	5	2	2	1	
Recommendation 4	4	2.5		1	0.5
Recommendation 5	2	1.5			0.5
Recommendation 6	1			1	
Recommendation 7	2	0.5			1.5
Total	**22**	**11.5**	**3**	**3**	**4.5**
%	**100**	**52**	**14**	**14**	**20**

Background

The purpose of education, as stated in the *Education Act* (Act), is to provide students with the opportunity to realize their potential and develop into highly skilled, knowledgeable, caring citizens who contribute to society. The Act states that every child who attains the age of six years shall attend a public school unless that child is receiving satisfactory instruction at home or elsewhere. Private schools are considered one of the alternatives to public education and are defined in the Act as institutions that provide instruction between 9:00 a.m. and 4:00 p.m. on any school day for five or more school-age pupils in any of the subjects of the elementary or secondary school courses of study.

All private schools are to be registered with the Ministry of Education (Ministry). During the 2014/15 school year, there were over 1,000 registered private elementary and secondary schools in Ontario that reported a total enrolment of approximately 110,000 students. These schools are considered to be independent organizations, and are not required to follow policies developed for publicly funded schools (those schools in either English or French public or Catholic school boards) or to follow the Ontario curriculum unless the school offers credits toward the Ontario secondary school diploma (OSSD). The Ministry conducts inspections at only those registered private schools that offer credits toward an OSSD. Non-credit-granting schools are not inspected by the Ministry. The number of credit-granting and non-credit-granting private schools in Ontario in the 2014/15 school year is shown in **Figure 1**.

Figure 1: Registered Private Schools, 2014/15 School Year

Source of data: Ministry of Education

	OSSD Credit-granting Schools	Non-credit-granting Schools	Total
Elementary	–	545	**545**
Combined elementary and secondary	167	88	**255**
Secondary	279	13	**292**
Total	**446**	**646**	**1,092**

Parents choose to send their children to private schools for a variety of reasons, such as the school offers an educational approach that may better suit their children, the school reinforces the religious practices of the home, or they believe that private schools achieve better academic results. The actual academic results of standardized testing suggest that the quality of education provided by participating private schools varies from well below average to excellent. Not only do Ontario private schools range in quality from well below average to some of the best schools in Canada, they also vary significantly in size from sometimes less than the minimum five students to enrolment of well over 1,000 students.

Our 2013 audit found that the Ministry provided very little oversight to ensure that private school students were receiving satisfactory instruction. In fact, Ontario has one of the least regulated private school sectors in Canada. Consequently, on its website, the Ministry cautions parents to exercise due diligence before entering into a contract to educate their children at a private school.

Our significant observations from the 2013 audit included the following:

- All private schools were required to submit an annual notice that they intend to operate in the upcoming school year. For new schools the Ministry conducted a brief validation visit to check the information submitted and confirm that the school met the legal definition of a private school. However, during these visits the Ministry did not evaluate the curriculum for either quality or content, did not check for any health and safety issues and had no process in place to inform other oversight agencies of any concerns observed. Except for this one-time visit, the Ministry provided almost no oversight of private elementary schools or secondary schools that did not offer high school credits.
- Given the limitations of the validation process, private schools were not permitted to state that the Ministry had approved their academic program. However, we identified several cases where private schools were advertising that their programs had been accredited by the Ministry. Parents, students and the public could be misled into thinking that the Ministry ensured some level of education quality at these schools. We also found several examples of entities advertising what appeared to be private school services without being registered with the Ministry. The Ministry did not have procedures in place to proactively identify unregistered schools that were operating illegally.
- In Ontario, anyone who cared for more than five children under the age of 10 had to be licensed under the *Day Nurseries Act*. However, private schools registered before June 1993 were permitted to operate child-care facilities without a licence. In contrast

to licensed daycare, there was no limit to the number of children of any age that private school staff could oversee, no fire safety requirements, and private school staff were not required to possess any child-care qualifications. The Ministry inspected licensed child-care facilities annually. However, after the initial validation visit in their first month of operations, the Ministry may never visit these private elementary schools that operate child-care facilities again.

- The Ministry inspected the standard of instruction in all the private schools that offer credits toward the Ontario secondary school diploma. About 100 of these schools were inspected more frequently than the others because of issues that may indicate credit integrity concerns. For example, it was brought to the Ministry's attention that some private schools were issuing students higher grades than earned or giving credit for courses that students had not attended. The Ministry had developed additional procedures to investigate such practices, but many education officers informed us that they did not have sufficient time to perform these supplementary procedures.
- Approximately 250 private schools had still not submitted the required information on their students for the 2011/12 school year by June 2013, a full year after the school year had ended. For data that is submitted, the Ministry had no process in place to verify its accuracy and relied on the good faith of private school administrators. For the public school system, the Ministry analyzes such data to determine if students are receiving satisfactory instruction and progressing academically. However, the Ministry had not done any such analysis for private school students.
- The Ministry has exclusive authority to grant the Ontario secondary school diploma. To help prevent diploma fraud and ensure control over blank diplomas pre-signed by the Minister of Education, the Ministry reconciles public schools' requests for diplomas to grade 12 student enrolments. However, this procedure had not been applied to private schools. In fact, the Ministry provided thousands of diplomas to private schools without identifying for whom these diplomas were intended. For example, for the 2011/12 school year, 30 private schools were issued a total of 1,500 more diplomas than their grade 12 student populations, and 50 other private schools were issued 2,300 diplomas even though they had not submitted any student enrolment data by June 2013.
- The Education Quality and Accountability Office (EQAO) helps to ensure satisfactory instruction by testing all students in the public school system at grades 3, 6 and 9. Some private schools participate in EQAO testing, and all private school students pursuing an Ontario secondary school diploma must write the EQAO's Ontario Secondary School Literacy Test (OSSLT). We reviewed EQAO test results and noted that a greater percentage of public school students achieved the provincial standard than private school students. In addition, in 2012, 82% of public school students passed the OSSLT on the first attempt, compared to 73% of private school students. The results for a sample of these private schools varied considerably, from an overall school pass rate of 19% to 100%. The Ministry did not analyze such EQAO results to determine if students in private schools are receiving satisfactory instruction.

We made a number of recommendations for improvement and received commitments from the Ministry that they would take action to address our recommendations.

Status of Actions Taken on Recommendations

According to information we received from the Ministry, progress has been made on implementing about two-thirds of the recommendations in our *2013 Annual Report*, which were aimed at ensuring quality instructions and credit-integrity at private schools. For instance, the Ministry has given education officers access to student information submitted by credit-granting private schools, which will not only allow verification of the accuracy of the information, but will also enable them to identify trends that may indicate educational quality issues. In addition, the Ministry has enhanced its inspection documentation process and is now retaining more detailed records from its inspections of credit-granting schools. New legislation is also being introduced to require all child-care services in private schools serving five or more children under the age of 3 years and 8 months to be licensed, which will ensure that these services meet legislated health, safety and educational quality requirements.

However, the Ministry has either not taken action on, or had decided not to implement, about a third of our recommendations, many of which relate to non-credit-granting schools. For example, the Ministry will not visit campus locations of non-credit-granting schools to verify that they comply with Ministry policy and legislation as recommended in our last audit. The Ministry also will not be analyzing test results of non-credit-granting private school students to identify and follow-up on outcomes that suggest these students are not receiving quality education. According to the Ministry, its focus is on ensuring that credit-granting schools are meeting ministry requirements, and will continue to rely on non-credit-granting schools to self-report compliance with ministry requirements. We continue to support our recommendations in these matters to ensure every child is receiving satisfactory instructions in all private schools.

The status of the actions taken on each recommendation is described in the following sections.

Establishing and Maintaining Status as a Private School

Recommendation 1

To help ensure that private school students receive satisfactory instruction in a safe and healthy environment and to ensure compliance with ministry policy and legislation, the Ministry of Education (Ministry) should:

- *enhance the notice of intention and validation processes to require private schools to demonstrate that their students are receiving satisfactory instruction;*

  Status: Fully implemented.

Details

The *Education Act* requires all private schools to submit a Notice of Intention to Operate a Private School (notice of intention) to the Ministry by the first of September each year. When the Ministry receives a notice of intention for a new private school, an education officer conducts an unannounced validation visit within the first month of the school's operation. The objective is to verify the accuracy of the information contained in the notice of intention, that the school meets the legal definition of a private school and that the Ministry's general requirements for a private school are in place. For existing schools, the Ministry does not perform validation visits or otherwise confirm that the information submitted by the schools is correct.

Our 2013 audit noted that the education officers did not generally retain supporting documentation from their validation visits to the schools or record their procedures for verifying how new schools met the statutory definition of a private school before approving the schools for registration. We also noted that there were no specific criteria or procedures to guide education officers in their assessment of whether the general requirements for private school are present. Education officers simply searched for evidence that the general requirements exist but do not evaluate how effectively they have been implemented. For example, to verify that the schools met the requirement for "control of content of program or courses of study", some education officers inquired about what programs were being taught, while others reviewed the school textbooks. In addition, all officers who we interviewed stated that, at private elementary schools and secondary schools that do not offer diploma credits, the curriculum was not evaluated for either quality or content.

Since our audit, the Ministry has revised the notice of intention form to include information on the qualification of the school principal, the number of teachers who are members of the Ontario College of Teachers, and whether the school has a child-care centre under the *Child Care and Early Years Act*. The Ministry also implemented a new business rule requirement for schools to submit overdue student information for their schools before their notice of intention can be submitted to the Ministry. Schools that do not submit them by September 1 for the upcoming school year cannot operate as a private school for that year.

In addition, to provide additional guidance to education officers in assessing whether schools met the Ministry's general requirements, in June 2015 the Ministry developed a new set of assessment criteria and provided related training. For example, to determine whether a new non-credit-granting school has "control of the content of the program or courses of study", education officers are advised to look for the presence of a curriculum, determine whether the principal is able to articulate a curriculum overview and whether the school offers full day day school programs or an after school program. The new criteria and training further clarified how schools should be assessed with regards to meeting the requirements in the validation process.

- *notify the appropriate authorities of any health and safety concerns observed during onsite school visits;*
  Status: Fully implemented.

Details

Our 2013 audit noted that private schools found to have health and safety concerns during validation visits, such as inadequate washroom facilities, a lack of fire exits, or classrooms that appears too small for the number of students, were still recommended for registration and allowed to operate. There was no formal process in place to document these concerns or inform oversight agencies.

At the time of our follow-up, the Ministry had revised its health and safety procedures concerning private schools to require education officers to file a complaint with the appropriate authorities when issues such as fire code violation, major structural damage to classroom areas, or unsafe areas for children are noted during their onsite school visits. They are also required to immediately contact Children's Aid Society to report any issues involving child safety. The related training for these new procedures was held in September 2015.

- *revalidate private schools annually or on a cyclical basis to ensure that information provided is correct and to revoke the authority to operate for those schools that do not meet the definition of and general requirements of a private school;*
  Status: Will not be implemented.

Details

Our 2013 audit identified that, although all private schools had submitted their annual Notice of Intention to Operate a Private School to the Ministry as required, the Ministry had not performed a validation visit or otherwise confirmed that the information submitted was correct. This information is self-reported by the school and education officers were not required to – and had not – verified any of the submissions.

In addition, after the initial validation review in the first year of operations for new schools, the Ministry has no policy in place to verify that the general requirements for a private school are still present. Although there are ongoing inspections of the credit granting schools which might mitigate some of the risks for these schools, there are no inspections of the non-credit granting schools which are also not required to provide any information on how they continue to meet these requirements.

The Ministry stated that it is not considering implementing our recommendation to revalidate all private schools as their focus is on inspections of credit-granting private schools. For private elementary and non-credit granting secondary schools, the Ministry will continue to rely on the self-reporting by these schools. We believe that the Ministry still has the responsibility to ensure that the private schools it permits to operate continue to meet the general requirements of a private school.

- *provide education officers with access to the Ontario School Information System to, for example, reconcile and validate enrolment;*

  Status for credit-granting schools: Fully implemented.

  Status for non-credit-granting schools: Will not be implemented.

Details

The Ministry requires private schools to submit student information to its Ontario School Information System (OnSIS) – a web-based application that integrates school, student, educator and course data. At the time of our audit in 2013, education officers did not have access to this system and were unable to verify student information to determine if schools continued to meet the requirements necessary to be registered as private schools. For instance, we reviewed the data collected through OnSIS and found that several schools reported actual enrolment of fewer than five students, with one school reporting fewer than five students for six consecutive years, which meant those schools no longer met the minimum requirements to register as a private school. We selected a sample of these schools and found that the enrolment reported in OnSIS did not correspond to enrolment reported on the Notice of Intention form for any of the samples selected.

Since our audit, the Ministry has given education officers access to reports of select information on the credit-granting private schools, but not for non-credit-granting private schools. Information provided on credit-granting schools includes a brief overview of the school (e.g. principal, address, enrolment), marks distribution and pass rates in English, Math and Science (as applicable), and student achievement indicators (e.g. Ontario Secondary School Literacy Test pass rates, attempted and earned credits). Training for education officers on the use and reconciliation of the OnSIS system was held in September 2015. The Ministry indicated it has no plan to reconcile and validate information submitted by non-credit-granting schools, because its focus is on ensuring credit-granting schools are meeting ministry requirements. We continue to support our recommendation to reconcile and validate student information provided by all private schools to ensure they continue to meet the requirements necessary to be registered as private schools.

- *identify all private school locations and verify that all locations comply with ministry policy and legislation;*

  Status for credit-granting schools: Fully implemented.

  Status for non-credit-granting schools: Will not be implemented.

Details

Our 2013 audit found that the Ministry only required private schools to provide data on their primary location. As a result, private schools could be operating additional locations that were undocumented by the Ministry. In 2010, through a one-time request to private schools to identify their additional locations, 117 private schools reported they were operating 180 additional locations, 87 of which were offering diploma credit courses and 93 of which were non-credit-granting schools. The Ministry had no previous knowledge of the existence of many of these locations and, therefore, had not inspected any of them. The Ministry, in response to our recommendation in 2013, informed us that it would begin requesting that private schools report additional locations on their annual Notice of Intention to Operate a Private School submission starting in the 2013/14 school year.

In 2014/15, the Ministry amended its policy to disallow the operation of additional locations by all credit-granting private schools, except for First Nations schools, unless these additional locations underwent the required validation and inspection processes. They are now required to submit their own Notice of Intention to Operate a Private School form, and to meet all of the requirements of a new private school. If a location failed to do so, then it had to either operate as a non-credit-granting school or close down. Of the 87 additional locations identified in 2010 that offered diploma credit courses, 48 are now operating as credit-granting schools and three as non-credit-granting schools. The rest of the schools either ceased operation (14) or are First Nation schools (22) on reserves which are still allowed to continue to operate additional campuses.

The Ministry continues to allow the 93 additional locations identified by non-credit-granting schools to operate under the Notice of Intention to Operate a Private School for their main sites. The Ministry has no plan to validate or inspect any of these additional locations. We believe that these locations should be visited at least once, similar to when new schools are visited to verify that the schools meet the legal definition of a private school, and that the Ministry's general requirements for a private school are in place.

- *ensure that closed schools forward all student records to the Ministry as required;*
  Status: In the process of being implemented by August 2016.

Details

Private schools that cease operations must forward student records to the Ministry to ensure that essential information on their students is preserved. In our 2013 audit we found that 235 private schools had ceased operations between the 2007/08 and 2011/12 school years, and less than half of our sampled schools had forwarded student records to the Ministry. The Ministry sent letters to private schools that had closed, informing them of this obligation, but did not perform any additional follow-up if the school did not forward student files or respond to the letter.

The Ministry stated it has no mechanisms to use to compel private school operators to comply with this requirement. To encourage closed schools to forward student records, the Ministry now sends schools reminder letters regarding the obligation to submit student records. It also included descriptions of this obligation in its Spring 2015 memoranda and policy manual. As of our follow-up, 21 of 113 schools that ceased operations between 2012/13 and 2014/15 have submitted their student records. To further encourage schools to forward student records, the Ministry is in the process of updating their student record submission guideline to include a new requirement for private schools to collect and organize for transfer to the Ministry (or another educational institution upon receipt of a written request) any student records in the school's possession following its closure, including those of students who have graduated or no longer attend the school. The update is expected to be completed by August 2016.

- *develop a process to proactively identify schools that are not complying with the advertising guidelines or are operating illegally without being registered.*
  Status: Fully implemented.

Details

Private schools are not permitted to claim that the Ministry has approved or accredited their academic program. However, in our 2013 audit, we found several cases of schools advertising that their programs were accredited by the Ministry. In a three-year period, the Ministry had issued nine cease and desist letters to organizations for false advertising or for claiming to be private schools when they were not registered with the Ministry. However, these cases were all identified through complaints by the public and the Ministry had not taken proactive measures to identify schools that were operating illegally.

To ensure schools that are reported as closed or that fail the validation process are not operating illegally, the Ministry has directed education officers to visit these properties to ensure they are no longer in operation. The Ministry visited 12 closed schools during 2014/15 and did not find any to be operating illegally as a private school. To proactively identify schools that do not comply with its advertising guidelines, the Ministry implemented a policy in August 2015 to conduct weekly audits of a minimum of 10 private school websites, and follow up accordingly if non-compliance is noted.

Private Schools with Day Nurseries

Recommendation 3

To reduce health and safety risks to preschool children and ensure compliance with legislation, the Ministry of Education (Ministry) should identify all private schools that operate child care facilities and ensure that these schools are licensed under the Day Nurseries Act *and inspected as required by legislation.*

Status: Fully implemented.

Details

In Ontario, any facility that cares for more than five children under the age of 10 who are not of common parentage must be licensed by the Ministry under the *Day Nurseries Act*. This Act exempted all private schools from its licensing requirements. However, the Ministry issued a policy in June 1993 requiring new private schools to obtain a child care licence if they served more than five children under junior kindergarten age (three years, eight months). Private schools already operating and serving children under junior kindergarten age were allowed to continue providing these services without a licence. In effect, these child care facilities within private schools were exempt from having to comply with a comprehensive list of standards for the health, safety and developmental needs of the children, including limiting the number of children per staff, approving fire evacuation plans and ensuring supervisory staff hold diplomas in early childhood education. They were also exempt from the annual inspection requirement under the *Day Nurseries Act*. In total, there were 361 private schools with child care facilities that met the exemption criteria.

Since our audit, to ensure that all schools that offered child care services are licensed, a new *Child Care and Early Years Act* (Act) was introduced to require that all facilities serving five or more children under junior kindergarten age, including the previously exempted private schools, obtain a licence to legally operate. The Act came into effect on August 31, 2015, and all private schools are required to obtain a licence by January 1, 2016.

The Ministry has identified 82 of the 361 private schools serving five or more children under junior kindergarten age which would now require a licence. As of July 2015, 41 of the 82 schools had submitted their licence application. The Ministry committed to begin performing site visits to these schools in the summer of 2015 to determine whether a licence should be issued. At the time of the finalization of this report in October 2015, the Ministry had completed 17 visits.

In order to identify any new unlicensed private schools operating child-care facilities in the future, the Ministry noted that, beginning in the 2014/15 school year, it began to flag and follow up on private schools that report they serve five or more children under junior kindergarten age. They will do the same during their validation visit at new private schools. The Ministry will also follow up on unlicensed child-care services in private schools that come to their attention through complaints.

Diploma Program Inspections

Recommendation 3

To ensure that adequate policies and procedures are in place to verify that credit-granting private schools are awarding course credits and diplomas in compliance with ministry policies, including the provincial grade 9 to 12 curriculum, the Ministry of Education (Ministry) should:

- *use its established criteria to assess the risk of non-compliance so that it can rank all credit-granting schools and devise an inspection frequency schedule according to the risks identified;*

  Status: Fully implemented.

Details

The Ministry inspects private schools that offer credits toward a high school diploma on a cyclical basis, generally once every two years. In addition, if a previous inspection determined that a school's operations were significantly non-compliant with ministry policies, an education officer may recommend more frequent inspections.

We noted in our 2013 audit that, although the Ministry had established risk management criteria to identify priority schools that needed to be inspected earlier in the year or more frequently, the Ministry had not always documented its assessments to support conclusions reached. Furthermore, none of the three regions we visited had performed a region-wide analysis to assess the risk at all schools, potentially not identifying all high-risk schools needing more frequent inspections.

Since our audit in 2013, the Ministry has updated its procedures to create a list of province-wide "priority" private schools with significant issues related to credit integrity based on its established risk management criteria and inspection results. Education officers annually review the high-risk school list from the prior year as well as the newly recommended schools and collectively determine which school should be inspected more frequently in the upcoming year. For the 2014/15 school year, the Ministry had identified 139 high-risk schools.

High-risk priority schools are tracked and monitored closely by the education officers across the various regions. Inspection frequency is based on inspection results, which are tracked on inspection reports and monitored by education officers.

- *document procedures undertaken, significant non-compliance observed and conclusions reached during inspections, and retain all documentation for management oversight and subsequent review;*

  Status: Fully implemented.

Details

Our 2013 audit noted that the Ministry's inspection files did not include supporting documentation, such as copies of completed checklists, whether the minimum required number of classrooms was visited, whether the required amount of time was spent at each classroom and whether the minimum required number of Ontario Student Records was reviewed. In general, education officers did not sufficiently document their inspection activities and decision making. As a result, we could not assess how well education officers were complying with the Ministry's requirements.

Since our audit, the Ministry has revised its filing and documentation procedures in order to support decisions made by the education officers during the inspection process, confirm the validity of decisions made by private schools with regard to student assessment and achievement, and document any required follow-up with respect to critical issues identified by the officers. These include:

- In September 2014, the Ministry centralized the private school filing system to consolidate inspection materials for four of its six regions in Toronto at the office of Private Schools and International Education Unit, with only the Sudbury/North Bay and Thunder Bay Regional Offices remaining responsible for their own filing of these documents. A full-time administrative assistant and temporary administrative assistant have also been hired to assist with the maintenance of all related files and documents.
- In March 2015, the Ministry issued a new procedure to encourage a consistent approach to documentation of the inspection process across the province – Filing and Documentation of Inspection Materials, Reports and Evidence. This document lays out the requirements to record decisions and retain materials created during the course of the inspection process, including those provided by the private schools to show compliance with ministry requirements, correspondences and notes of telephone calls or visits on follow-up activities and action plans developed by the private schools. It also includes any other documentation that should be retained at the discretion of the Ministry.

In addition, for inspections at high-risk schools with credit integrity issues, all documents created by the schools to demonstrate fulfillment of ministry requirements and to support their decisions regarding student assessments and achievements must be retained. Examples of the documentation to be retained for high-risk schools include: course outlines, class timetables, school course calendars, samples of final student evaluations, and the school's action plans to address critical issues identified during ministry inspections.

- *consider a conditional rating for new private schools that are not yet fully compliant;*

  Status: In the process of being implemented by February 2016.

Details

Our 2013 audit found that new private schools were permitted to operate and grant diploma credits even when significant non-compliance was identified. Compliance issues included situations where curriculum expectations were not always evident in classrooms and there was a lack of evidence that the mandatory 110 hours of instruction were being scheduled and delivered. The Ministry stated that its practice was to provide schools with an opportunity to address non-compliance issues within a specified time frame, rather than proceeding directly to the removal of credit-granting authority.

At the time of our follow-up, the Ministry was in the process of introducing a "conditional" rating for new private schools that are not fully compliant with ministry requirements. However, the Ministry has indicated that the criteria for the conditional status would only include administrative non-compliances, such as failure to submit OnSIS data and late fees, and does not include criteria related to the quality of education which is evaluated as part of the inspection process. The Ministry still needs to include such criteria to ensure parents have complete information when selecting a school for their children.

The Ministry has held discussions with its Legal Services Branch regarding the creation of a new "conditional" status for schools that are not in compliance with ministry requirement; it is expected to be implemented in the 2015/16 school year. Communication of the new "conditional" status has been included in the Spring 2015 memorandum to the schools and the Ministry has committed to continuing this communication in subsequent memoranda.

Schools with the "conditional" status will be listed on the ministry website and will have until the end of the current school term (either December, June or August) to provide evidence that the school has come into compliance. Any schools that are unable to provide sufficient evidence of compliance will no longer be able to operate as a private school in the next school term. The Ministry is aiming to finalize the criteria by fall 2015 and to formally roll-out the new policy in February 2016.

- *review whether the "P" notation on public school student transcripts is influencing post-secondary admission decisions as intended;*

  Status: Little or no progress.

Details

The Ministry requires public schools to flag student transcripts with a "P" notation for courses taken at private schools. The purpose is to address concerns that some public school students may take courses at private schools in order to obtain higher marks, which will give them an advantage in university admissions and scholarship applications.

Our 2013 audit noted that for the 2010/11 and 2011/12 academic years, approximately 6,000 courses were taken by public school students at private schools, with two-thirds of these courses being at the grade 12 level. Many universities we interviewed during our audit stated that the "P" notation is not well understood and that they accept credits issued by private schools at face value. As of our follow-up, the Ministry had not done any review to determine whether the "P" notation is influencing post-secondary admission decisions as intended. The Ministry plans to survey postsecondary admissions offices in February 2016 to determine if the notation is influencing admissions decisions.

- *establish effective procedures to identify, track and take timely corrective action against private schools that are repeatedly non-compliant with ministry policies.*

Status: In the process of being implemented by February 2016.

Details

During the inspection process, an education officer may determine that a private school with credit-granting authority is not complying with ministry policies to an extent that could affect the integrity of the credits issued by the school. These concerns are to be communicated to the private school principals, who are then expected to prepare an action plan to address significant non-compliance. A follow-up inspection is then to be performed to ensure that any issues identified have been corrected.

Our review of a sample of inspection reports in 2013 noted that the majority of these reports had some concerns in relation to compliance, with about one-third identifying non-compliance to be at a level that could potentially affect the integrity of credits issued by the schools. Examples of concerns include a lack of evidence that the required 110 hours of instruction were scheduled and delivered, and expectations set out in the curriculum were not met. It was also noted that not all issues found during inspections were recorded in the reports if the issues were corrected at the time of the follow-up visits. For schools that did not have follow-up visits, they were given until the next inspection cycle to resolve compliance issues. In addition, there were no guiding principles to assist education officers in determining the degree of non-compliance that would lead to credit-granting authority being denied.

Since our audit, the Ministry has revised its validation and inspection processes to better document decisions by the education officers and related follow-up activities to ensure instances of non-compliance noted from inspections of the schools are documented (as discussed under an earlier recommendation). The Ministry also worked with its Education Statistics and Analysis Branch to compile the list of private schools not in compliance with ministry data submission requirements. In conjunction with the tracking of schools with the "conditional" status, once implemented in February 2016, they will identify schools that are not in compliance with requirements for action by the Ministry. In addition, the Ministry's current list of province-wide "priority" private schools also tracks schools with credit integrity issues which require more frequent inspections.

The Ministry has also developed new training materials and internal policy to assist education officers in assessing when non-compliance should lead to the denial or revocation of credit-granting authority. The related training sessions were held in June 2015.

Required Data Submissions and Reporting

Recommendation 4

To help ensure that sufficient information is submitted to enable effective oversight of the private school sector and compliance with legislation and related policies, the Ministry of Education (Ministry) should:

- *consider various options to encourage private schools to submit the required information on a timely basis;*

  Status: Fully implemented.

Details

Section 16 of the *Education Act* states that private schools are to provide statistical information regarding student enrolment, staff, courses of study and other information, as required by the Ministry. This information is to be submitted three times a year through the Ministry's Ontario School Information System (OnSIS) – a web-based application that integrates school, student, educator and course data. For private elementary and non-credit-granting schools that do not offer diploma credits, they are only required to submit their aggregate student enrolment for the year.

Our 2013 audit found that many private schools did not submit the required student-specific data to the Ministry on a timely basis. For example, in June 2013, data for the 2011/12 school year was still outstanding for approximately 25% of private schools.

In order to encourage schools to submit the required statistical information, the Ministry reminded schools of the requirement through letters and memoranda. The Ministry also provides assistance to schools in navigating through the online system and submitting the required information successfully. Ad hoc reports are run to determine the schools' data submission status, to determine if schools are in compliance.

Beginning in July 2015, private schools that have not submitted their latest statistical information are not able to submit their notice of intention for future school years. In addition, credit-granting schools can no longer request diplomas for graduating students from the Ministry unless they are up-to-date with their data submission.

The Ministry aims to collect data from approximately 92% of the schools annually, as some schools – such as those that were closed during the school year – no longer submit any data. As of October 2015, approximately 97% of private schools had submitted the required 2014/15 school year data to the Ministry.

- *implement procedures to periodically verify the accuracy of the data submitted by private schools;*

  Status for credit-granting schools: Fully implemented.

  Status for non-credit-granting schools: Little or no progress.

Details

The Ministry uses data collected through OnSIS to make informed policy decisions for public schools based on graduation rates, course pass rates and student credit accumulation. This information is used to help ensure that students in the public school sector are progressing and receiving satisfactory instruction. However, our 2013 audit noted that the Ministry had not done any such analysis of the data from private schools as there are significant challenges in obtaining complete and accurate information from the private schools in a timely manner.

Since our audit, the Ministry has now required the accuracy of the information reported by the credit-granting schools to be verified as part of the inspection process. Education officers will have access to reports of select information from OnSIS for the credit-granting schools, such as the number of students enrolled and course enrolment information that they can use as baseline information during school inspections. This new process has been finalized and formally implemented starting in September 2015 for the 2015/16 school year inspections. However, this process will not be applied to non-credit-granting schools as they are not subject to inspection by the Ministry after the initial validation visit upon the opening of the school.

To ensure reasonableness of statistical data submitted by all private schools, the Ministry established and implemented additional verification rules for its online OnSIS data submission system in May 2013. For example, the system will not allow elementary schools to have students above the grade 8 level, and the number of teachers reported as members of the Ontario College of Teachers must not be greater than the total number of teachers employed.

- *analyze data received to highlight potential concerns and to determine if private school students are progressing appropriately;*

  Status for credit-granting schools: Fully implemented.

  Status for non-credit-granting schools: Will not be implemented.

Details

Our 2013 audit found that the Ministry did not analyze private school student data as it did with public schools due to challenges with the completeness, accuracy and timeliness of when the information was received. To address the lack of analysis of private-school data, beginning in September 2015, education officers started to review select data reported in the OnSIS system as part of the credit-granting schools inspection process including:

- each course's marks distribution and pass rates;
- number of diplomas issued in each of the past five years;
- student credit accumulation data; and
- number of students who withdraw from courses.

The Ministry has also developed a guide to help education officers interpret and analyze the data. The guide poses questions of potential interest that may be considered part of the inspection process. For example, education officers are instructed to ask how the distribution of marks for each course/course type at the private school compares with the provincial public and private marks distribution, and what percentage of students in each grade were re-taking courses which they had previously taken at a public school.

However, for non-credit-granting schools, the Ministry does not analyze this data to highlight potential concerns at these schools, as it continues to focus only on credit-granting schools. We continue to support the recommendation for the Ministry to analyze data of all private schools.

- *consider assigning Ontario Education Numbers to all private school students to help verify compulsory school attendance.*

  Status for credit-granting schools: Fully implemented.

  Status for non-credit-granting schools: Little or no progress.

Details

An Ontario Education Number (OEN) is a unique identification number that enables the recording of student-specific information as well as each student's progress through the educational system. The number also facilitates the collection and analysis of data about Ontario's system in general.

Our 2013 audit noted private elementary and non-credit-granting secondary schools were not required to assign OENs to their students, but had the option to do so.

As of our follow-up, this policy had not changed. However, to encourage the assignment of OENs, the Ministry communicated this option in the 2014 and 2015 memoranda to private schools. Beginning October 2013, the Ministry also simplified the application process by allowing the application for these numbers through its online system. However, the Ministry currently has no plan to make the assignment of OENs a requirement for students in private elementary and non-credit-granting secondary schools, as it continues to focus its effort on ensuring credit integrity at credit-granting private schools.

At the time of our follow-up audit, there were 38,000 students enrolled in private elementary and non-credit-granting secondary schools in Ontario who are eligible to be assigned an OEN. The Ministry has not tracked how many of these students have been assigned an OEN. Without OEN numbers, the Ministry cannot track the progress of these students through the educational system.

Issuing Blank Diplomas and Certificates

Recommendation 5

To help ensure that Ontario secondary school diplomas and Ontario scholar certificates are issued only when they are earned and that adequate controls are in place over their distribution, the Ministry of Education (Ministry) should:

- *reconcile the number of diplomas and certificates requested to the number of graduating students reported at each private school, and investigate any unreasonable discrepancies;*
  Status for the issuance of Ontario secondary school diplomas: Fully Implemented.
  Status for the issuance of Ontario scholar certificates: Will not be implemented.

Details

Our 2013 audit noted that the Ministry has not been comparing the number of graduating students to the number of diplomas requested by the private schools. When we compared the number of diplomas requested to the number of student enrolment reported in the OnSIS system for the past three academic years, we noted that in 2011/12, 30 private schools were issued a total of 1,500 diplomas in excess of their entire grade 12 student population. The Ministry was also issuing diplomas to private schools that had not submitted their enrolment figures.

In order to control the number of diplomas that can be requested by each private school and expedite the diploma request process, the Ministry deployed a new online request system for the June 2015 graduation year. The new system automatically calculates the maximum number of diplomas each school can request based on the average number of graduating students reported in the prior three years, which helps ensure the number of diplomas available for request corresponds to the number of graduates.

Schools can request additional diplomas and certificates by contacting the Ministry, and these are issued at the Ministry's discretion if schools are able to demonstrate a need for extra copies. As an additional mechanism to control the number of blank diplomas schools have on-hand, beginning in 2013/14 the Ministry also started tracking and deducting the number of unused diplomas of the previous year (calculated by diplomas issued minus the number of graduates reported) from the projected number of diplomas for the current graduation cycle. The Ministry's new projection formula prevents unreasonable diploma requests from being automatically fulfilled.

To monitor the volume of diplomas requested by each school, beginning in the 2013/14 school year the Ministry started running a daily report during the June graduation diploma request period to identify and investigate any school that requested

5% or more diplomas above their grade 12 enrolment.

Ontario Scholar Certificates are awarded to students who have achieved at least an 80% average. In our 2013 audit we noted that some private schools requested scholar certificates equal to the number of diplomas, suggesting that all of their graduates would achieve an 80% average. At the time of our follow-up, the Ministry planned to continue issuing certificates equal to the total number of diplomas issued. And, as part of the inspection of the schools, inspectors will verify whether these certificates have been awarded to students who have obtained at least an 80% average. We continue to believe that the Ministry should only issue Ontario Scholar Certificates to private schools equal to the number of students who have obtained at least an 80% average.

- *distribute diplomas and certificates to only those private schools that submit student-specific data for graduating students.*
  Status: Fully Implemented.

Details

Our 2013 audit noted the Ministry was issuing diplomas to private schools that had not submitted their student enrolment figures. For instance, in June 2013, 50 schools still had not submitted their 2011/12 student enrolment information but received over 2,300 diplomas from the Ministry without having to demonstrate that they had any graduating students.

Beginning with the June 2015 graduation year, private schools that have not submitted their previous year's student enrolment data will not be able to request any diplomas and certificates from the Ministry. This new policy ensures that schools will stay up-to-date with their enrolment data submissions.

Policy and Legislative Enforcement

Recommendation 6

To better ensure compliance with the Education Act *and policies related to private schools, the Ministry of Education (Ministry) should consider a legislative framework that would provide more flexible and cost-effective enforcement tools that are commensurate with the nature and extent of non-compliance.*

Status: Little to no progress.

Details

Section 16 of the *Education Act* outlines a number of requirements for private schools and the penalties for non-compliance. The penalties were last updated in the 1970s. Currently, the penalties outlined in the Act include a fine of $50 a day for every person managing a private school without a notice of intention, a maximum of $200 for the person in charge of a school who has not provided statistical information [illegible] the Ministry within 60 days of the request, and up to $500 for every person who knowingly makes a false statement on a notice of intention form or information return. According to the Act, an individual or school must be convicted of these offences before any fines can be imposed. The Ministry has stated that, as a result of this requirement, enforcement is not fiscally responsible, as legal costs of pursuing a conviction far outweigh the fines that may be collected. However, during the summer of 2015, six private schools were charged; four have been convicted.

The original ministry response to our 2013 recommendation stated that the Ministry would continue to expand initiatives to provide information to parents and students regarding consumer awareness in the private school sector. As for issues of enforcement, the assessment of options would be commensurate with the Ministry's role in this sector and that of education ministries in other provinces.

There has been no progress made on these commitments. The Ministry indicated it will begin exploring potential changes to the Act in the summer of 2015.

Testing of Private Schools Students

Recommendation 7

To help ensure that private school students receive satisfactory instruction and are provided with the opportunity to realize their potential and develop into highly skilled, knowledgeable citizens, the Ministry of Education (Ministry) should:

- *consider options to increase private school participation in standardized testing;*

  Status: Will not be implemented.

Details

The Education Quality and Accountability Office (EQAO), an independent agency of the Ministry, helps to ensure satisfactory instruction by testing the various grades in the publicly funded school system. Standardized tests are administered in grades 3 and 6 for reading, writing and mathematics, grade 9 for mathematics, and grade 10 for the Ontario Secondary School Literacy Test (OSSLT). Successful completion of the grade 10 OSSLT is a requirement to obtain the Ontario secondary school diploma for both public and private schools.

Our 2013 audit noted that, although it is not a requirement that private schools participate in the standardized tests for its students, some do. For example, in the 2011/12 school year, 112 private schools participated in the grade 3 and 6 assessments, and 18 participated in the grade 9 assessment. All credit-granting schools participated in the grade 10 OSSLT test.

Currently, the Ministry is not considering options to increase private school participation in future standardized testing since changes to legislative authority would be needed to require private schools to participate. We continue to support the recommendation for the Ministry to consider options to increase private school participation in standardized testing to ensure satisfactory instructions are provided to all students.

- *analyze test results for private school students and follow-up on any outcomes that suggest these students are not receiving a quality education.*

  Status for analyzing OSSLT results: Fully implemented.

  Status for analyzing grade 3, 6 and 9 EQAO assessment results: Will not be implemented.

Details

Our 2013 audit reviewed the results of the standardized testing scores for private schools that have elected to participate in the standardized tests for their students. It noted that, although individual school results varied significantly, a greater percentage of public school students achieved the provincial standard than private school students. In our sample of private schools' Ontario Secondary School Literacy Test (OSSLT) results, we found that the outcomes for these schools varied considerably, from well below the provincial average to excellent, with pass rates ranging from 19% to 100%.

Starting September 2015 prior to the inspection of the credit-granting secondary schools, the education officers will review the OSSLT pass rates for the past five years for these schools for trends and areas of concern for follow-up during the inspections. For example, in their review of OSSLT results, education officers are instructed to consider factors such as whether the OSSLT pass rate changed over the years, and whether the pass rates are comparable with the results of courses offered at the schools.

The Ministry will not be analyzing grade 3, 6 and 9 EQAO assessments, as not all private schools participate in these tests and no inspections are undertaken for the private elementary and non-credit-granting secondary schools. We continue to support the recommendation for the Ministry to analyze these assessment results for all private schools.

Chapter 4

Section

4.07

Ministry of Natural Resources and Forestry

Provincial Parks

Follow-up to VFM Section 3.07, *2013 Annual Report*

RECOMMENDATION STATUS OVERVIEW

	# of Actions Recommended	Status of Actions Recommended			
		Fully Implemented	In Process of Being Implemented	Little or No Progress	Will Not Be Implemented
Recommendation 1	2		2		
Recommendation 2	1		1		
Recommendation 3	1		1		
Recommendation 4	1		1		
Recommendation 5	1		1		
Recommendation 6	1		1		
Recommendation 7	1			1	
Recommendation 8	1		1		
Total	**9**	**0**	**8**	**1**	**0**
%	**100**	**0**	**89**	**11**	**0**

Background

The Ministry of Natural Resources and Forestry (Ministry) is responsible for establishing, operating and managing provincial parks in accordance with the *Provincial Parks and Conservation Reserves Act, 2006* (Act). The Ministry's mandate under the Act is to protect the province's natural and cultural heritage, facilitate scientific research, and provide opportunities for Ontarians to increase their knowledge of the province's natural and cultural heritage and to engage in ecologically sustainable recreation.

About one-third of Ontario's 339 provincial parks are operating parks that provided recreational opportunities such as day-use areas and overnight camping to approximately 8.5 million visitors in 2014/15. Non-operating parks, while still accessible to the public, have no staff on site and offer only limited facilities.

With the exception of about 20 parks that are open year-round, most operating parks generally operate from May to October. The Ministry charges fees for the use of provincial parks or any facilities offered within the parks to help fund park operating expenses. Fees are not charged in most non-operating parks. Historically, revenues generated by park fees have covered over 80% of the parks' operating costs, with the province making up the difference. The province also funds expenditures related to park infrastructure and those related to the planning and protection of the park system (such as research and monitoring activities).

At the time of our audit in 2013, we noted that the growth of the provincial park system and the new requirements prescribed in the Act had, given the Ministry's resources, challenged its ability to meets its legislated mandate. We also noted that the Ministry was at risk of falling further behind in meeting its mandate for the following reasons:

- The Ministry's own survey of park planners, ecologists, biologists and park superintendents found that it lacked baseline scientific data on the provincial park system, such as information about native biological and non-biological components and processes in the parks, and the pressures that affect them. Without such information, the Ministry cannot determine whether ecological integrity within the park system is being maintained and take action to restore it where necessary, as required in the Act.
- Limited resources had left significant portions of the operating parks and the 220 non-operating parks, which at the time covered about half the area of the provincial park system, with little or no enforcement presence. During our audit, park staff advised us that violations of the Act, such as illegal hunting, boundary encroachments by adjacent landowners, waste dumping, and the cutting and removal of trees and plants, were regularly taking place in these areas of the provincial park system.
- Visits to provincial parks have increased by over 40% over the last 20 years, but the Ministry's minimum operating standards covering aspects of park operations, such as waste management, sanitation, and maintenance of facilities and grounds, had not been updated at the time of our audit. The Ministry's survey of day visitors and overnight campers indicated that general maintenance and amenities were at the top of the list of areas that could be improved.
- In 2013, we estimated that assets listed as being in "poor" or "defective" condition, such as buildings, roads, bridges, drinking water systems and septic systems, required over $590 million to replace. This backlog of required capital asset expenditures reflected an increase of $170 million since our previous audit of provincial parks in 2002. We noted that, without additional investments, the backlog would continue to grow.
- Results of the Ministry's visitor survey indicated that Natural Heritage Education (NHE) programs in provincial parks were underutilized and generally failed to meet visitors' expectations, with only 8% of day visitors and 18% of overnight campers participating in NHE programs. In addition, the Ministry's strategic review of its NHE programs found that there had been very little change in the types of interpretive programs offered over the last few decades, and many parks with NHE programs either had outdated NHE plans or no NHE plan at all for the delivery of interpretive programs.

With respect to revenues generated by provincial parks, we noted the following:

- Generally, parks in southern and central Ontario operated at capacity and attracted significantly more visitors than parks in other regions. However, the Ministry had not fully explored the possibility of further increasing fees in more popular parks in the south and lowering fees in less visited parks, mainly in the north, to increase visits and improve cost recovery.

- Lease payments for the nearly 600 private cottage properties held under lease in Algonquin and Rondeau Provincial Parks were significantly below fair market value and, at the time, should have generated approximately $6.7 million more in revenue than the Ministry received. In addition, the fees charged by the Ministry for providing services such as garbage collection and snow removal were also well below the actual costs incurred by the Ministry.

We also noted that, although the Ministry's first State of Ontario's Protected Areas Report in 2011 met the minimum reporting requirements under the Act, similar reports in other jurisdictions reported more comprehensively on aspects of their park systems. For example, other jurisdictions reported on the results of actions taken to meet the objectives in park management plans; relationships with Aboriginal communities in planning and managing parks; and the condition of capital assets in the parks. Furthermore, at the time of our audit the Ministry had established performance measures for only two of the four objectives prescribed in the Act. The Ministry also lacked benchmarks to evaluate its performance in maintaining ecological integrity and monitoring ecological change in the parks.

We made a number of recommendations for improvement and received commitment from the Ministry that it would take action to address our recommendations.

Status of Actions Taken on Recommendations

According to information we received from the Ministry, progress has been made on many of the recommendations in our *2013 Annual Report*. For example, the Ministry has developed an action plan describing the activities required to gather scientific data in specific areas where it is needed, and a framework to ensure that monitoring programs across the Ministry are aligned with the action plan. In addition, the Ministry is currently reviewing and updating its enforcement strategy and minimum operating standards for provincial parks to bring them in line with current visitation levels and address concerns identified in visitor surveys. Similarly, the Ministry has developed a new model for the delivery of Natural Heritage Education (NHE) programs in provincial parks, and is currently developing plans for all zones and parks that offer NHE programs. The Ministry is also investigating possible park fee pricing structures to increase visitation, revenues and cost recovery. Since our audit in 2013, the Ministry has spent approximately $48 million to correct infrastructure deficiencies that were identified, and has begun work to replace its asset management system.

With regard to the private cottage lot leases in Algonquin and Rondeau Provincial Parks, the Ministry is working through the required environmental assessments and public consultations to inform its decision on whether or not to renew the leases. Should the Ministry decide to renew the leases in 2017, the results of the environmental assessments and public consultations, as well as the economic and environmental studies commissioned by the Ministry, will be considered in developing the new tenure agreements. Such agreements will include terms and conditions to minimize the environmental impact of the cottages, and ensure that lease payments reflect the properties' fair market value and that the Ministry recovers its cost for services provided.

One recommendation will require more time to be fully addressed, specifically with regards to tracking and reporting on the Ministry's performance against its legislated mandate. More work is needed to establish appropriate benchmarks and collect the necessary information to enable the Ministry to assess its performance against all four legislated objectives for the effective management of Ontario's parks.

The status of actions taken on each of our recommendation is described in the following sections.

Research and Monitoring

Recommendation 1

To help ensure that the maintenance and restoration (when necessary) of ecological integrity is the first priority in the planning and management of Ontario's provincial park system, as established by the Provincial Parks and Conservation Reserves Act, 2006, *the Ministry of Natural Resources (Ministry) should:*

- *develop an overall strategy that includes partnering with the outside research community to ensure that sufficient baseline scientific data exists on native biological and nonbiological components and processes within the province's park system, and the pressures that affect these;*
  Status: In the process of being implemented by 2016.

Details

In 2015, the Ministry developed the Integrated Science Action Plan, which establishes priorities to ensure that activities across the Ministry generate sufficient and appropriate scientific information to enable the Ministry to fulfill its mandate. The Action Plan identifies nine areas where there is an immediate and ongoing need for scientific data (referred to as "need areas"). Some of the need areas include, for example, the state of the province's natural resources, the relationships between the various components of ecosystems, and threats to the province's natural resources. These need areas form the basis for the Ministry's short-term and long-term priorities beginning in the 2015/16 fiscal year.

The Action Plan describes the Ministry's long-term objectives in each of the nine need areas, including inventorying, researching, monitoring and other activities necessary to meet each objective. For example, activities related to provincial parks include taking inventory of the occurrence of rare species and habitats, conducting research to understand the role of wetlands in watersheds, and developing indicators and benchmarks to assess the effects of pressures from nearby human settlement. The long-term priorities will be reviewed every five years, or when there are changes to the Ministry's strategic directions and organizational structure.

In addition to the periodic review of long-term priorities, short-term priorities will be established annually based on current ministry initiatives. For example, the Ministry has identified the following as some of the immediate priorities for the 2015/16 fiscal year: implementing a pilot bear monitoring program, designing methods for moose monitoring, and continuing research on the ecology and distribution of species at risk. A report on the results of activities and investments related to these immediate priorities is expected by the first quarter of fiscal year 2016/17.

To support the Action Plan, the Ministry is developing a new research agreement with select Ontario universities, through which it plans to contract with academic researchers to conduct research on topics identified by the Ministry. Research topics will be determined by the priorities identified in the Action Plan and the availability of resources within the Ministry for such research to be conducted. The Ministry expects to have the new research agreement finalized in 2016.

- *develop a plan to adequately monitor changes in ecosystems within the province's parks, conduct ecological restoration when the need to do so has been determined, and assess the results of such restoration.*
  Status: In the process of being implemented by March 2016.

Details

In 2015, the Ministry developed the Integrated Monitoring Framework (Framework) to ensure that monitoring programs across the Ministry are aligned with the priorities and objectives outlined in the Action Plan. The Framework is intended to better integrate monitoring programs across the Ministry, provide guidance for data collection and information management, and establish roles and responsibilities for the delivery of the various monitoring programs. The Framework is supported by individual frameworks that guide terrestrial- and aquatic-based monitoring activities in areas such as forests, wildlife, inland lakes and the Great Lakes.

To help inform the development of the Framework, the Ministry conducted a review of the existing monitoring programs at the local, regional and provincial levels to identify candidates for redesign, consolidation or co-ordination toward improving their effectiveness and efficiency. For example, monitoring programs that have experienced budget erosion, and therefore may no longer be effective, were identified for redesign. The review also identified programs that may have met their intended objectives so that resources can be redirected to new monitoring programs that may need to be developed.

Phased implementation of the updated monitoring programs is expected to begin in spring 2016.

Enforcement

Recommendation 2

To help ensure that provincial park resources are adequately protected, the Ministry of Natural Resources should update its review of its risk-based enforcement strategy for parks and examine cost-effective strategies for addressing the identified risks.

Status: In the process of being implemented by 2016.

Details

During our 2013 audit, we noted that the Ministry had been unable to execute its risk-based enforcement strategy due to lack of enforcement resources to address the identified risks. For example, we found that enforcement was focused mainly on areas known to have heavy human traffic, which left significant portions of the operating parks and some areas within the 220 non-operating parks subject to little or no enforcement presence.

During the 2015 operating season, the Ministry conducted a field test of its monitoring checklist in 10 of the 20 non-operating parks in the Southeast Zone. Monitoring was conducted up to five times during the operating season with the objectives of assessing the condition of park infrastructure (such as trails, fencing and signage) and identifying signs of non-compliance with the Act. We reviewed the completed checklists and noted that some of the concerns raised included damage to and deterioration of park infrastructure as well as evidence of hunting activity, tree cutting and ATV traffic.

Using the results of the field test, the Ministry is reviewing its enforcement strategy for non-operating parks to identify risks to park assets and areas of improvement. The review is expected to be completed in December 2015, after which the Ministry will develop options to address risks, gaps or improvement opportunities by March 2016. The Ministry aims to implement the approved changes to its enforcement strategy for non-operating parks in the 2016 operating season.

The review of enforcement activities and standards for operating parks is being conducted as part of the review of the minimum operating standards (described in the section **Operating Standards**), which is also expected to be completed in December 2015. Changes to the Ministry's enforcement activities in operating parks will be implemented in the 2016 operating season.

Park Fees

Recommendation 3

To help increase overall visits to provincial parks, draw more visitors to underused parks and increase its revenue from the provincial park system, the Ministry of Natural Resources should assess the impact on visits and revenues that would result from reducing fees in the less-visited parks and increasing fees in the more popular parks that are currently operating at or near capacity.

Status: In the process of being implemented by September 2016.

Details

The Ministry's current park fee pricing structure is based on the facilities and services offered in each park. For example, parks with the least developed infrastructure have the lowest fees, while those with showers, flush toilets and educational programs have the highest fees.

The Ministry is reviewing park fees across Canada and the United States to compile information regarding pricing structures in provincial and state parks. The jurisdictional review seeks to identify approaches to increase revenue through the use of premium camp-site pricing, peak season pricing and special event fees (such as for filming, concerts and festivals). The Ministry is also reviewing cancellation policies in other jurisdictions to determine whether there is an opportunity to increase revenues by making changes to their own cancellation policy.

Concurrent with the jurisdictional review, the Ministry is analyzing the impact on revenues of camp-site price changes if it implements peak season pricing. In addition, the Ministry is also reviewing the current monthly occupancy rates to identify opportunities to reduce rates based on occupancy. The Ministry expects to complete its jurisdictional review and analysis of revenue impacts of various camping fee models by April 2016. Recommendations to the Treasury Board for future park pricing structure are expected to be finalized by September 2016. However, due to the time required to obtain the necessary approvals and make changes to the Ministry's reservation system, any park fee changes are not expected to be implemented until the 2018 operating season.

Operating Standards

Recommendation 6

In light of the significant increase in visits to provincial parks since the Ministry of Natural Resources (Ministry) last set minimum operating standards for, among other things, security and enforcement, waste management, sanitation, and cleaning and maintenance of buildings, facilities and grounds, the Ministry should review and update its standards. In addition, the Ministry should continue to conduct visitor surveys and monitor the results to ensure that visitor expectations are met.

Status: In the process of being implemented by fiscal year 2016/17.

Details

In April 2014, the Ministry conducted a preliminary assessment of its minimum operating standards, and determined that a comprehensive review was required to bring the operating standards in line with the Ministry's current business model. The comprehensive review began in June 2015 with the objectives of updating the operating standards and developing the tools necessary to implement them.

Among the tools being developed is a new framework to provide high-level guidance to park staff for implementing and meeting the standards. In addition, a new template for level of service standards is being designed so that park staff can develop park-specific service plans that address local conditions. Finally, a new audit form is being developed to facilitate monitoring and evaluation of the park service plans. The new audit form will be used for the operational audits that will be conducted at least once every three to five years for each provincial park to ensure that park operations are in accordance with the operating standards. The new tools and updated standards are expected to be completed in December 2015 and implemented in fiscal year 2016/17.

With regard to the visitor surveys, the Ministry conducted a visitor survey during the 2015 operating season—the first since 2011. The final report is expected to be completed in March 2016. Results of the 2011 survey were used to inform the Ministry's decisions on a number of initiatives to enhance visitors' in-park experiences, such as new alternative accommodations in provincial parks and the design of various programs such as Learn to Camp, Learn to Fish and Healthy Parks, Healthy People. The Ministry plans to conduct visitor surveys every three to five years, and use the results to inform its decisions on future initiatives. Survey results for each park are also made available to zone and park staff to inform park management decisions.

Capital Asset Management

Recommendation 5

To ensure that park infrastructure is in a satisfactory state, the Ministry of Natural Resources (Ministry) should take action to correct infrastructure deficiencies already identified. The Ministry should also ensure that its asset management system contains accurate, complete and up to date information on the condition and value of the parks' capital assets.

Status: In the process of being implemented by fiscal year 2017/18.

Details

Since our audit in 2013, the Ministry has spent approximately $30 million on capital projects such as construction of comfort stations and sewage systems, upgrades to pedestrian bridges and roads, and six drinking water systems related projects that were completed in 2014/15. In addition, the Ministry has spent approximately $18 million on capital maintenance projects in the same period.

In order to better understand the state of capital assets in provincial parks, the Ministry has developed multi-year lists that prioritize required capital projects in all provincial parks. Over a period of five years beginning in fiscal 2015/16, the Ministry has identified high priority projects estimated at $127 million to construct, replace or upgrade comfort stations, park buildings, and pedestrian and trail bridges. The Ministry has also identified $40 million in high priority capital maintenance projects for the same period. The final list of capital projects to be completed in a given fiscal year will be determined by the actual allocation the Ministry receives for that particular fiscal year.

With respect to its asset management system, the Ministry acknowledges that its current system does not meet its needs. A dedicated lead has been assigned to acquire a new asset inventory system and assess the condition of park assets. The new asset management system, which the Ministry expects to be implemented in fiscal year 2017/18, will replace all the systems currently being used to maintain information about park assets. Verification of the accuracy of data in the existing systems will be conducted when the Ministry implements the new asset management system. In the interim, the Ministry will continue to rely on park staff to update the asset inventory systems to reflect new or discarded assets. As we noted during our 2013 audit, park staff did not verify the existence and condition of assets, nor did they regularly update the system as required by Ministry policies.

Natural Heritage Education

Recommendation 6

To ensure that Natural Heritage Education (NHE) programs meet visitor expectations and program objectives, the Ministry of Natural Resources (Ministry) should develop or update NHE plans in all zones and parks that offer NHE programs. The Ministry should ensure that the plans address the concerns that were noted in its 2011 strategic review of NHE programs.

Status: In the process of being implemented by the end of 2017.

Details

At the time of our 2013 audit, four of the six zones did not have an NHE plan, and the plan at one of the remaining two zones had not been reviewed in 20 years. In addition, of the 43 operating parks with interpretive NHE programs, only about half had an updated NHE operating plan in place.

The Ministry has since developed a new model for the delivery of NHE programs in provincial parks, which was piloted in 16 parks during the 2015 operating season. The new model, which will be formally launched in June 2016, makes use of various media including interactive websites to enhance in-park experiences, staff-led programs, self-use activity books and interpretive products (such as panels and trails). Under the new model, a number of parks will offer Education Programs and the remaining parks will offer Discovery Programs.

Education Programs are long-term, park-specific interpretive programs with co-ordinated projects that contribute to the maintenance of ecological integrity. Parks offering Education Programs will have a five-year Interpretive Plan that outlines specific program objectives, primary interpretive themes, visitor characteristics and interpretive services currently available at the park. Plans for two of the Education Program parks are currently being completed. The Ministry expects to have Interpretive Plans in place for all parks offering Education Programs by the end of 2017.

The Discovery Program, the details of which have not yet been finalized, is a more generic program that makes use of pre-packaged, corporate-developed interpretive products. Parks offering Discovery Programs will have an annual Education Plan that provides direction on staffing, minimum number and types of programs, permitted guest speakers and management of trails. A generic template is being completed for all Discovery Program parks by the end of 2016. The Ministry expects to implement the Discovery Program over two operating seasons beginning in 2016, with approximately 20 to 25 parks delivering the program. The remainder of the parks are expected to deliver the program in 2017.

The new model also calls for the development of a five-year provincial Strategic Direction with an annual action plan to guide the delivery of NHE programs across the province. In addition, each zone will be required to develop an Interpretive Plan, which provides direction for self-use interpretive products including trails, exhibits and signage. The provincial Strategic Direction, annual action plan and the individual zone plans have not yet been completed.

Reporting

Recommendation 7

The Ministry of Natural Resources (Ministry) should compare its State of Ontario's Protected Areas Report (SOPAR) with similar reports in other jurisdictions to identify and emulate best practices in reporting. The Ministry should also set appropriate benchmarks and collect the information it needs to assess its performance against all four legislated objectives for the effective management of Ontario's parks, and present the results in future reports.

Status: Little or no progress.

Details

At the time of our audit in 2013, the Ministry had not established any benchmarks to evaluate its success in maintaining and restoring ecological integrity in provincial parks, facilitating scientific research and providing opportunities to increase the public's knowledge of the province's natural and cultural heritage. Even for the two objectives for which the Ministry had established performance measures, we noted that some targets were either not realistic or the Ministry was not tracking its success against the targets.

At the time of our follow-up, the Ministry had not yet established any benchmarks related to ecological integrity, scientific research and its NHE program. We noted that the Ministry will be developing benchmarks related to ecological integrity as part of its Action Plan (described in the section **Research and Monitoring**), but has not identified this as an immediate priority, nor has it established a time frame in which it aims to develop such benchmarks. The Ministry also indicated that performance measures for its NHE program will be established as part of the provincial Strategic Direction that is currently being developed (described in the section **Natural Heritage Education**).

With regard to identifying best practices in reporting on its performance against its mandate, the Ministry is in the early planning stages of developing an approach to streamline the various reports on the state of the province's natural resources (including the State of Protected Areas Report). As part of the planning, the Ministry is looking at other jurisdictions for examples of new, modern approaches to reporting on the state of the environment and natural resources. Best practices identified in the jurisdictional scan will inform the Ministry's approach in developing the next State of Ontario's Protected Areas Report in 2021.

Privately Leased Lands

Recommendation 8

The Ministry of Natural Resources (Ministry) should, once its study is complete, act to mitigate any negative environmental and economic impacts posed by private cottages in the two provincial parks identified. If the decision is made to renew these leases in 2017, the Ministry should ensure that the lease payments are increased to at least fair market value and that the fees charged for services to the cottagers recover the Ministry's cost of providing the services.

Status: In the process of being implemented by 2017.

Details

A final decision has not been made on whether or not the cottage lot leases in Algonquin and Rondeau Provincial Parks will be renewed when the current term expires in 2017. The decision, which is expected to be made in 2016, is subject to the results of, among others, the environmental assessment process and the Aboriginal and public consultations process. These processes must be completed separately for each park.

In late fiscal 2013/14, the Ministry invited comments from Aboriginal communities, stakeholders and the public on the potential environmental effects of extending cottage tenure in Algonquin Provincial Park. In April 2015, upon consideration of comments received, the Ministry informed all who had responded that there would be no significant net environmental impact associated with extending the cottage tenure, provided that appropriate conditions are imposed on cottagers to mitigate it, where possible. The Ministry also indicated that an ecological monitoring plan would be developed to monitor the health of ecosystems in the vicinity of the cottages and to ensure that tenure conditions are being met. Details of the tenure conditions and the monitoring plan have not been finalized yet.

In June 2015, the Ministry announced that it was taking steps that may lead to extending the term of occupation for existing private cottage lots in Rondeau Provincial Park from December 2017 to December 2038. The public and stakeholder consultations related to the cottage tenure in Rondeau Provincial Park are expected to begin in December 2015.

The economic and environmental studies regarding the impact of the private cottages, which were commissioned by the Ministry at the time of our 2013 audit, were completed in March 2015. If a decision is made to extend the leases for another 21 years, the results of the above processes and the recommendations from economic and environmental studies will be considered in developing the new tenure agreements. The economic study of cottage lots in Algonquin Provincial Park recommended a fee structure based on their appraised land value, with service fees tied to the actual costs incurred by the Ministry. The study of ecological pressures associated with cottage lot leases in Rondeau Provincial Park indicated that private cottage lots and their associated recreational activities have put some species at increased risk, have degraded fragile ecosystems ranked as imperilled, and are a continuing source of invasive species that spread into the rest of the park. According to the Ministry, the new tenure agreements will include conditions to minimize the environmental impact of cottages. In addition, a new fee structure will be established so that lease payments reflect the properties' fair market value and the Ministry recovers its cost of providing services to the cottagers.

Chapter 4

Section

4.08

Ministry of Health and Long-Term Care

Rehabilitative Services at Hospitals

Follow-up to VFM Section 3.08, *2013 Annual Report*

RECOMMENDATION STATUS OVERVIEW

	# of	Status of Actions Recommended			
	Actions Recommended	Fully Implemented	In Process of Being Implemented	Little or No Progress	Will Not Be Implemented
Recommendation 1	3	1	2		
Recommendation 2	6	2 2/3	1	1 1/3	1*
Recommendation 3	5	2 2/3	1 1/3	1	
Recommendation 4	1		1		
Recommendation 5	3	2/3	1 2/3	2/3	
Total	**18**	**7**	**7**	**3**	**1**
%	**100**	**39**	**39**	**17**	**5**

Note: The fractions in some cells result from recommended actions being implemented to different degrees by the three hospitals we audited.

* One recommendation was not applicable to one hospital.

Background

In coming years, the demand for rehabilitation services, such as physiotherapy and occupational therapy, in Ontario is expected to increase significantly, especially after 2021 when the first baby boomers turn 75. In 2014/15, about half of regular rehabilitation inpatients were over 75 years of age.

The Ministry of Health and Long-Term Care (Ministry) funds inpatient rehabilitation services in about 60 hospitals through 14 Local Health Integration Networks (LHINs). There are two kinds of inpatient rehabilitation: regular (frequent sessions for a short term) and restorative (slower-paced and over a longer term). In 2014/15, the approximately 60 hospitals had more than 2,500 regular rehabilitation beds (they had almost 2,500 in 2012/13), to which more than 31,000 patients (it was more than 30,000 in 2012/13) were admitted. Orthopedic conditions (including hip and knee replacements) and stroke were the most common reasons people were admitted to regular rehabilitation inpatient programs.

The Ministry funds rehabilitation services for eligible Ontarians. This includes hospital rehabilitation inpatients and hospital-registered outpatients. The Ministry also funds community-based services for qualified people, including those 19 and under and 65 and over; people who require physiotherapy at home or in long-term-care homes; and people who are eligible for social or disability assistance from the province.

In our *2013 Annual Report*, we found that the Ministry did not have information available on the total public funding spent on rehabilitation services or on the number of patients who used hospital-run outpatient programs.

There is no co-ordinated rehabilitation system in Ontario. Instead, individual hospitals—some with input from their LHIN—generally determine which inpatient and/or outpatient rehabilitation services they will offer, if any. This means that each hospital establishes its own policies and procedures for determining patient eligibility for its services, prioritizing patients and providing care. As a result, a patient deemed eligible for services at one hospital might not be eligible for similar services at another. Many stakeholder associations have called for better provincial co-ordination of rehabilitation programs to help transition people from acute care to rehabilitation and to ensure patients receive rehabilitation when needed.

Some of our other significant observations included the following:

- There was wide variation in the supply of regular rehabilitation inpatient beds across the province, which could mean that patients had to travel outside their LHIN for services. The number of beds ranged from 57 per 100,000 people in the Toronto Central LHIN to only six per 100,000 in the Central West LHIN. The provincial average is 18 beds per 100,000.
- The lack of information on the use or outcomes of restorative inpatient rehabilitation or on outpatient rehabilitation meant the Ministry did not know if those services were effective.
- Approximately a third of patients admitted to inpatient rehabilitation at the two hospitals we visited with stroke programs had been assessed by an acute-care hospital as having mild functional impairment. This suggested they might have been better served in outpatient programs if these less costly services were available.
- Patients who no longer required hospital care may be occupying beds needed by other patients. The Ontario Hospital Association reported that, as of March 2013, about 2,300 alternate-level-of-care patients who were ready to be discharged were waiting in acute-care hospital beds for arrangements to be made. Of these, 25% were waiting for a regular rehabilitation bed or a complex continuing care (which includes restorative rehabilitation) bed.
- With the exception of stroke, for most conditions requiring rehabilitation, there were few best-practice standards in Ontario for such matters as when therapy should start and frequency of treatment. Practices varied at the hospitals we visited.

We made a number of recommendations for improvement and received commitments from the Ministry and hospitals that they would take action to address our recommendations.

Status of Actions Taken on Recommendations

The Ministry and hospitals provided us with information in the spring and summer of 2015 on the current status of our recommendations, indicating that they had made some progress in implementing several of the recommendations we made in our *2013 Annual Report*. The Ministry and the hospitals have fully implemented close to 40% of the recommendations. For example, all hospitals that we audited in 2013 now prioritize patients based on need and track the amount of therapy provided to patients. As well, the Ministry and the hospitals are in the process of implementing about another 40% of the recommendations as they are waiting for the completion of work being led by the province's Rehabilitative Care Alliance (Alliance) on a standardized data collection and reporting system. The Ministry is also working toward establishing a province-wide co-ordinated system for rehabilitation by setting out a Definitions Framework and standardized eligibility. The remaining recommendations have shown little or no progress or will not be implemented, including one recommendation which is inapplicable at one hospital. For example, at the time of our follow-up review, none of the hospitals had performed a formal assessment to determine the need for and costs of evening and weekend therapy services.

The status of actions taken on each of our recommendations is described in the following sections.

System Co-ordination and Capacity

Recommendation 1

To better ensure that Ontarians requiring rehabilitation have equitable access to services, the Ministry of Health and Long-term Care (Ministry) should work with the Local Health Integration Networks to:

- *establish a province-wide co-ordinated system for rehabilitation, including both regular (shorter-term) and restorative (longer-term) inpatient services and all community-based outpatient services;*

  Status: In the process of being implemented by March 2017.

Details

At the time of our 2013 audit, we found that each hospital generally established its own policies and procedures for admitting rehabilitation patients, determining patient eligibility, prioritizing patients for services, managing patient wait lists and providing patient care. This approach resulted in differences in the types and levels of inpatient and outpatient services provided by hospitals across the province.

The Rehabilitative Care Alliance (Alliance), which was established by Ontario's 14 LHINs, includes representatives from the Ministry, health-service providers in the hospitals and community sectors, and clinical experts. The Alliance has developed, validated and shared a provincial Definitions Framework for inpatient and community-based rehabilitative services. The objectives of the Definitions Framework are to establish provincial standards for rehabilitative levels of care and provide clarity to patients, families and referring professionals. It also aims to provide a foundation for determining the number and location of rehabilitation beds and services to be offered in the province. The Definitions Framework defines rehabilitative care, and standardizes eligibility criteria and intensity of therapy for each level of care (e.g., short-term, long-term, etc.). Over the next two years, the Alliance plans to support the LHINs' implementation of the tools, frameworks and processes that have been developed to establish a province-wide co-ordinated system for rehabilitation.

- *provide the public with detailed information on programs available, eligibility and how to apply, such as through a public website.*

  Status: Fully implemented.

Details

In 2013, we found that there was no listing, such as a website, that patients and their families could access to see all publicly funded rehabilitation services available in the province, by LHINs or otherwise.

Each of the three hospitals that we followed up with has its own website, and each of the 14 Community Care Access Centres (CCACs) across the province has also maintained a website through **thehealthline.ca** that directs patients and their families on how to seek the rehabilitation services they need. Eligibility requirements and how to apply are either posted on **thehealthline.ca** or linked to each hospital's respective website.

Since our last audit, the Ministry has established a centralized Ontario government website, **Ontario.ca**, which contains over 10,000 location listings for rehabilitation programs and over 60 other types of services.

In order to have good information for current and future decision-making, the Ministry should establish, in conjunction with its shareholders, what information should be collected on restorative inpatient and outpatient services and how best to collect the data.

Status: In the process of being implemented by March 2017.

Details

In our 2013 audit, the Ministry did not have detailed information on restorative patients, such as the number of admissions and related rehabilitation beds, the number of rehabilitation visits to hospital physiotherapists or occupational therapists, the number of patients and the types of hospital-based and outpatient rehabilitation services available. Without complete information, it is difficult for the Ministry or the LHINs to determine the capacity of the system and how it is used.

Working with the Alliance, the LHINs will use the Definitions Framework, Capacity Planning and System Evaluation task groups to manage rehabilitative care planning for restorative patients and develop a reporting system that tracks information such as the number of patients served in each level of rehabilitative care, intensity of services provided, occupancy rates, rates and reasons for patients being denied services, and patient outcomes.

Inpatient Services

Recommendation 2

To better ensure that inpatient rehabilitation meets patients' needs as efficiently and equitably as possible, hospitals should:

- *implement systems for accepting patient referrals electronically;*

Status: Hospital 1: Fully implemented.
Hospital 2: Little or no progress.
Hospital 3: In the process of being implemented by June 2017.

Details

The hospitals we visited varied in how they received patient referrals for inpatient services. For example, one hospital received most of its patient referrals via an electronic system. Another hospital received only internal referrals electronically, while the third hospital could only receive referrals through phone or fax. As well, two of the hospitals we visited were already able to access internal patient information electronically but external patient information had to be entered manually.

A provincial standardized referral form was initiated by the Toronto Central LHIN and was in place at the time of our 2013 audit. The Ministry expects all health-service providers across the province to implement the form by the end of fiscal year 2015/16. The Ministry told us that, as of March 2015, the form is already being implemented by over 70% of health-service providers. However, it is up to the health-service providers to incorporate the use of the standardized form through their own electronic systems. We found that the referral processes used by each of the three hospitals still varied.

Already in place during our audit in 2013, the LHIN of Hospital 1 implemented an electronic Resource Matching and Referral system. This hospital receives referrals electronically from its own and another LHIN.

Hospital 2 modified the provincial referral form and developed a decision algorithm and a new process to accept clients to its acute-care inpatient units. This hospital plans to expand the use of the modified form to accept referrals from all other hospitals within the same LHIN by March 2017, and this model will also be used by the two next largest hospitals in the LHIN. Although Hospital 2 uses a standardized referral form, the process for referrals from outside of this hospital is still paper-based. Hospital 2 will not be able to accept patient referrals electronically until an electronic system is developed by the LHIN. This hospital's LHIN is currently piloting an electronic form at a few of the smaller hospitals in the LHIN.

Hospital 3 accepts internal patient referrals electronically; however, referrals from outside this hospital are still paper-based. Since our last audit, the hospital has worked with the province and its Regional Rehabilitation Network to develop a standardized referral form containing all necessary data elements, and has adopted this standardized referral form for all its internal and external referrals. Hospital 3 indicated that it is ready to implement an electronic referral system as soon as it is developed by the LHIN. The expected date of the implementation is June 2017.

- *implement systems for uploading associated patient data electronically;*

  Status: Hospital 1 and 2: Little or no progress.
  Hospital 3: In the process of being implemented by June 2017.

Details

Although Hospital 1 receives referrals electronically, it still has to manually re-enter all patient information into its own information system—an inefficient process that increases the risk of data entry errors. The hospital explored the opportunity to upload health record information electronically and decided that, due to the high cost and ongoing maintenance fees, it will wait for the LHIN to take action in regards to interfacing its electronic referral system with its information system.

Hospital 2's patient information is electronically accessible on its systems so health information for internal referrals does not have to be re-entered. This was in place at the time of our last audit. However, for referrals from outside the hospital, staff must still enter patient information manually. In the next few years, this hospital plans to implement a new electronic health record system that will electronically upload patient referrals into its system but it does not yet have a date for when it will be implemented.

Hospital 3 has an electronic system to track health information from its acute-care site, which was in place at the time of our audit. However, as Hospital 3's external referrals are still paper-based, each referral must be manually entered into this system. This hospital indicated that once the LHIN-level electronic referral system is implemented during fiscal year 2015/16, its electronic health record system will be integrated with the LHIN system.

- *in conjunction with the Ministry of Health and Long-term Care (Ministry) and the Local Health Integration Networks (LHINs), develop standardized practices regarding patient eligibility for similar programs, prioritization of patients based on patient need, and the frequency and duration of therapy;*

  Status: Hospital 1: Fully implemented.
  Hospital 2: Little or no progress.
  Hospital 3: In the process of being implemented by June 2016.

Details

Our 2013 audit found that the hospitals we visited varied in how they determined eligibility for similar programs. In addition, neither the province nor the LHINs established a standardized prioritization policy for hospitals to follow, so each hospital decided how to prioritize its own patients. With the exception of standards for people who suffered a stroke, we found that there were few best-practice standards in Ontario for the amount, type and frequency of inpatient therapy that patients should receive for specific conditions. At the hospitals we visited, the amount and type of therapy that each patient received was based on the professional judgement of his or her therapist and the resources available.

In fiscal year 2013/14, Hospital 1 worked with the LHIN Task Force to develop standards for the frequency and duration of therapy for the hip/knee rehabilitation populations. This hospital told us it had followed these best practice standards for rehabilitation admissions, including eligibility and prioritization for total joint replacement and fractured hips.

Hospital 2 uses its own eligibility and prioritization criteria for accepting patients into its programs because there are no standardized criteria established in its region. Also, there are no region-wide standardized practices regarding the frequency and duration of therapy. Hospital 2 indicated that the amount and type of therapies provided is based on a clinical assessment by a physiatrist and an interprofessional rehabilitation team. This hospital considers the patient's previous and current levels of functioning as well as their expected recovery when creating outcome goals. Hospital 2 expects that a patient accepted into its inpatient rehabilitation program will receive, on average, three hours or more of therapy each weekday from the interprofessional team.

Hospital 3 informed us that it is in the process of reviewing the criteria (such as for patient eligibility, prioritization of patients and frequency and duration of therapy) established by the Alliance in the Spring of 2015, and that it would adopt these criteria in collaboration with its Regional Rehabilitation Network, which includes all hospitals in the region as well as the region's CCAC and LHIN, by June 2016.

- *track and monitor information on the amount of therapy actually provided to patients, the number of patients declined and the associated reasons;*

Status: Hospital 1, 2 and 3: Fully implemented.

Details

Our 2013 audit identified that the hospitals did not track all key information. For example, none of the hospitals documented all rehabilitation provided to an individual patient, so it was difficult to determine how much therapy was actually provided. In addition, only one hospital we visited tracked the number of patients who were declined and why.

Hospital 1 now tracks the amount of therapy delivered by each therapist to individual patients receiving rehabilitation services. The hospital reviews the summary reports every month to ensure each patient receives an equitable amount of therapy. Also, it now tracks the rates and reasons for being declined.

Hospital 2 has an electronic system that tracks and reports on therapy time received by each patient. The report shows the date therapy was provided, which therapist provided the therapy, and the length of the therapy session. This hospital monitors the number of patients accepted and declined, as well as how long the patient waited from being admitted to being provided a rehabilitation bed. The triage nurses also document in an electronic log the reasons patients were denied therapy services.

Hospital 3 has an electronic workload system that measures the amount of therapy given to each patient by all members of the health-care team. This hospital has been tracking wait times, decline rates and reasons for refusals since our audit in 2013.

- *track and monitor information on the time it takes to fill a bed after a patient is discharged;*

Status: Hospital 1 and 2: Will not implement. Our position is that this is appropriate given the short turnaround time.
Hospital 3: Fully implemented.

Details

At the time of our audit, none of the hospitals tracked how long it took to fill vacated rehabilitation beds. This information could help prevent long waits for patients in acute-care beds who need rehabilitation beds.

Hospital 1 informed us that because its turnaround time is less than two hours due to advance planning of admissions and discharges taking place on the same day, it was not necessary to track the time it takes to fill a bed after a patient is discharged.

Hospital 2 indicated that because it plans in advance when patients are admitted and discharged, its turnaround time is less than a day. Therefore, it said it would not be implementing this recommendation.

Hospital 3 is currently tracking and monitoring the time to fill an inpatient bed through an electronic system. This hospital tracks wait times for beds on a monthly basis, and if the occupancy rate drops below its target of 95%, it will look at the time taken to fill beds. The hospital indicated that its turnaround time is generally the same or next day.

- *consistent with the* Health Insurance Act*, charge a co-payment only to restorative rehabilitation patients who are not expected to return home.*

  Status: Hospital 1: Fully implemented.
  Hospital 2: Will not implement. Our position is that this is appropriate because this recommendation is not applicable to this hospital.
  Hospital 3: Fully implemented.

Details

In 2013, one of the two hospitals we visited with complex continuing care (CCC) beds charged the co-payment to all of its CCC patients, including restorative rehabilitation patients, regardless of whether they were expected to return home, something that is not allowed under the *Health Insurance Act*.

During our 2013 audit, Hospital 1 was already in compliance with the *Health Insurance Act* in charging co-payment only to restorative rehabilitation patients who are not expected to return home.

Hospital 2 does not have restorative rehabilitation in-patient beds, so this recommendation is not applicable.

Effective April 1, 2014, Hospital 3 indicated that it had complied with the *Health Insurance Act* by no longer charging the co-payment to restorative rehabilitation patients who are expected to return home.

Outpatient Services

Recommendation 3

To better ensure that patients have timely access to required outpatient services, hospitals should:

- *prioritize eligible patients based on need, rather than on other factors such as whether they were referred from the hospital's inpatient program or externally;*

  Status: Hospital 1, 2 and 3: Fully implemented.

Details

Our 2013 audit found that there was no provincial or LHIN-wide policy for prioritizing patients on wait lists; each hospital followed its own procedures. The policy at two of the hospitals we visited was to prioritize on the basis of who had been waiting the longest. The third hospital told us that the policy was also to consider factors such as the patient's medical issues and risk of falling.

In 2014, Hospital 1 hired a dedicated Patient Flow Co-ordinator, who is an occupational therapist, to ensure appropriate prioritization by client need and urgency. This hospital told us that since fiscal year 2013/14, only five referrals have been declined, and this was because the hospital did not offer the services that were required by the patients.

Hospital 2 informed us that all referrals to its outpatient rehabilitation programs are prioritized based on need, such as their safety risks, the amount of time since injury, and potential for improvement. In addition, this hospital has an orthopedic rehabilitation clinic that deals exclusively with patients who have had surgery at this hospital. All other hospitals in this LHIN that offer surgery and have outpatient rehabilitation services operate in a similar fashion. Within this closed referral system, patients are also prioritized according to need.

Hospital 3 told us it prioritizes patients based on clinical need, and matches them to the program that best suits their needs. In addition, this hospital told us that the patient must have functional goals and a reasonable expectation of meeting those goals in order to be accepted for rehabilitation.

- *assess the need for, and the costs and benefits of, providing evening and weekend services;*
  Status: Hospital 1, 2 and 3: Little or no progress.

Details

In 2013, we found that one of the reasons it can be hard for patients to attend outpatient services was because there are few or no evening/weekend services for clients who cannot attend programs on weekdays.

Hospital 1 told us that its outpatient rehabilitation clinics are meeting demand with their Monday-to-Friday "business-hours" scheduling, and that the clinics' wait times are short. However, the hospital has not done any formal analysis on this, and it said it will add a question to its outpatient survey to find out whether patients want extended hours. It did not provide a specific time frame to fully implement this recommendation.

Hospital 2 said it will complete an assessment of the costs and benefits, including the consideration of quality indicators and available resources, of extending services to evenings and weekends by March 31, 2016. Evening services in this hospital's orthopedic post-surgical outpatient department have been available at the time of our audit in 2013.

Hospital 3 said it will develop a methodology to determine the cost of providing expanded access for outpatient services in fiscal year 2015/16. The hospital indicated that implementing this recommendation would either require funding that recognizes the additional cost of expanding service hours, or it would have to reduce its Monday-to-Friday day-time services.

- *in conjunction with the Ministry of Health and Long-Term Care (Ministry) and Local Health Integration Networks (LHINs), develop standardized practices for common patient conditions, such as total joint replacements, regarding when to begin outpatient therapy, as well as the type and duration of therapy.*
  Status: Hospital 1: Fully implemented.
  Hospital 2: In the process of being implemented by March 2017.
  Hospital 3: Fully implemented.

Details

In our 2013 audit, we reported that, other than for stroke programs, there are few best practices in Ontario for outpatient therapy such as when therapy should start, how much therapy should be provided, what type of therapy should be provided, the length of therapy sessions and the number of weeks therapy should be provided.

Hospital 1 informed us that it follows the Ministry's Quality Based Procedures' best practices for outpatient rehabilitation of total knee and total hip replacements which include standardized practices for when to begin outpatient therapy as well as the type and duration of therapy. This hospital is also a member of several working groups to develop best practice standards for rehabilitation of knee and hip fractures and total joint replacements.

Hospital 2 informed us that it is part of a Regional Rehabilitation Network that meets monthly to standardize rehabilitation practices for common orthopedic procedures. This hospital indicated that, since September 2014, it has been following the Ministry's Quality Based Procedures' standardized protocols for total hip replacements, total knee replacements and hip fractures, which include specific timeframes on when to start rehabilitation, how many sessions to provide as well as the duration and format of services. However, Hospital 2 also has other patient populations, such as patients with an acquired brain injury or a spinal cord injury, where regional or provincial standardized practices do not exist. Hospital 2 indicated that this will likely be fully implemented by March 2017, as it is waiting for further recommendations by the Alliance's subgroup on outpatient quality based procedures.

Hospital 3 indicated that it has adopted the Ministry's Quality Based Procedures' best practices with respect to common patient conditions such as outpatient total knee and total hip replacements.

Further, hospitals should collect information to better ensure that available outpatient resources are utilized efficiently and effectively, such as information on the number of appointment cancellations and patient no shows.

Status: Hospital 1, 2 and 3: Fully implemented.

Details

In 2013, only one hospital tracked information, at one of its two clinics, on whether each therapist was fully booked, how many appointments were cancelled by patients, and the extent of patient no-shows. The other two hospitals did not track this information. Hospital 1 developed a report to monitor outpatient targets, including patient volumes, wait times, admissions and discharges. This report is reviewed on a daily basis by hospital staff and on a weekly basis by senior management. Information on cancellations and no-shows is currently being collected manually. The hospital is in the process of standardizing these definitions so that it can be compared across all units. Hospital 1 informed us that it is on track to acquire and implement a new scheduling system by March 2016.

Hospital 2 captures the number of appointments each day, the number of cancellations and the number of no shows in all outpatient areas.

Hospital 3 collects data on use by outpatients, including new visits, follow ups, cancellations and no shows. During our last audit in 2013, this hospital monitored wait times and length of stays in outpatient programs using its electronic wait list system. Hospital 3 told us that it has since refined this system, and it uses this system actively to report wait times.

Hospitals should collect information to better ensure that available outpatient resources are utilized efficiently and effectively, such as on the change in patient functionality between when outpatients start and when they complete outpatient rehabilitation.

Status: Hospital 1: In the process of being implemented by March 2017.
Hospital 2: In the process of being implemented by January 2018.
Hospital 3: In the process of being implemented by June 2017.

Details

Our 2013 audit found that outpatients who received rehabilitation services were not assessed using a standardized measure for determining their functional improvement; therefore, there is little information on whether outpatient programs are effective.

All three hospitals are waiting for the Alliance to finalize specific outcome measures to be included in a standardized reporting system for all hospitals across the province. All three hospitals plan to implement the Alliance's recommendations, which are expected by March 2017.

Hospital 1 is working with the Alliance and its Regional Rehabilitation Network outpatient working group to determine the most appropriate tool to measure functional improvement.

One of Hospital 2's sites uses outcome measures at the beginning and the end of rehabilitation treatment for all patients. This hospital currently does not have a central reporting function for change in patient functionality, except for its physiotherapy clinic.

Although Hospital 3 measures patient functionality individually, there is no standardized tool and no central reporting function used across all outpatient rehabilitation settings to determine whether outpatient therapy is effective.

Common Conditions Requiring Rehabilitation

Recommendation 4

To better ensure that stroke patients receive rehabilitation services that address their needs and that rehabilitation resources are used efficiently, the Ministry of Health and Long-term Care (Ministry) should work with the Local Health Integration Networks (LHINs) to implement, at least on a pilot basis, the stroke rehabilitation and patient flow best practices, including those relating to timely access and the extent of therapy, accepted by the Ministry's Rehabilitation and Complex Continuing Care Expert Panel.

Status: In the process of being implemented by March 2017.

Details

In our 2013 audit, none of the hospitals we visited that had a stroke program tracked how much therapy each patient received. The amount and type of stroke therapy that each patient receives was based on the professional judgment of his or her therapists.

After our 2013 audit, the Ministry, in collaboration with Health Quality Ontario, developed a Quality Based Procedures (QBP) Clinical Handbook. The QBP Clinical Handbook offers evidence-based best practice recommendations for selected disease areas or procedures. As of March 2015, the QBP Clinical Handbook for stroke had been updated to include post-acute care, and work was underway to develop a post-hospital medical QBP. There is no mandated time frame by which a QBP must be implemented by hospitals, but the Ministry indicated that it will work with the LHINs and hospitals to assist in timely implementation of best practice recommendations. The QBP Clinical Handbook includes timely access to rehabilitation within five to seven days, and this metric, along with rehabilitation intensity and time spent in therapy, has been included on the Ontario Stroke Network annual report card. This will allow the Ministry to monitor whether stroke patients receive timely access to rehabilitation.

In addition, each LHIN associated with the hospitals that we visited implemented best practices in stroke rehabilitation:

- The Toronto Central LHIN has implemented the Clinical Service Performance Improvement for Stroke to ensure stroke patients receive rehabilitation services that address their needs and that rehabilitation services are used efficiently. The Toronto Central LHIN Stroke Implementation Group developed standardized approaches to program planning and identified performance indicators and processes for outpatient rehabilitation to monitor and measure program performance.
- In the Champlain LHIN, the Champlain Regional Stroke Network (CRSN) has an established Stroke Rehabilitation committee, which is focused on improving patient flow and performance related to stroke rehabilitation across the region. A Pilot Community Stroke Rehabilitation System is under development. This multi-sector working group is developing a model for community-based stroke rehabilitation.
- Hamilton Niagara Haldimand Brant (HNHB) LHIN is collaborating with the Central South Regional Stroke Network and Regional/District Stroke Centre to establish an integrated acute stroke recovery system that provides standardized, evidence-based stroke care, improves client outcomes, facilitates system

sustainability and improves the co-ordination of stroke care. A plan is being developed for an integrated stroke recovery system for the Niagara Health System.

Performance Monitoring

Recommendation 3

In order to enhance the performance of hospitals providing rehabilitation services, hospitals should:

- *in conjunction with the Ministry of Health and Long-term Care (Ministry), develop standardized performance measures that will provide hospitals with useful and comparative information, such that they can benchmark their performance against other hospitals and better identify areas, if any, requiring improvement;*

  Status: Hospital 1: In the process of being implemented by March 2017.
  Hospital 2: In the process of being implemented by January 2018.
  Hospital 3: In the process of being implemented by June 2017.

Details

Our 2013 audit found that the performance measures tracked at each hospital varied, which limits the ability of hospitals, the LHINs and the Ministry to compare performance and thereby identify better rehabilitation practices.

The Alliance is developing standardized performance indicators and outcome measures. Targets and performance reports are expected to be developed by March 2017, at which time, all three hospitals have committed to implementing these recommendations.

During this follow-up, Hospital 1 informed us that it submits data, including outpatient and fractured hip information, to its Regional Rehabilitation Network, and beginning fiscal year 2015/16 will submit its admission and discharge volumes, number of visits and attendances to its LHIN.

Hospital 2's specialized rehabilitation unit is benchmarked against a specific rehabilitation organization that provides rehabilitation care to a similar patient population through the National Rehabilitation Reporting System (NRS). The NRS, run by the Canadian Institute for Health Information (CIHI), collects information on the characteristics and effectiveness of rehabilitation services in more than 2,000 adult rehabilitation clients in six provinces. Hospital 2 submits data to the NRS and information is extracted from the NRS database by hospital staff to monitor Hospital 2's activity and performance on a quarterly basis. This hospital is already using all of the outcome measures for orthopedic rehabilitation; however, there is no platform or forum for reporting these.

Hospital 3's Regional Rehabilitative Network compares data across the LHIN for inpatient rehabilitation beds in the areas of stroke, orthopedics and frail seniors. Benchmarks for performance are set for orthopedics by Health Quality Ontario and the Ministry's Quality Based Procedures Clinical Handbook, and for stroke by the Ontario Stroke Network Scorecard.

- *survey patient caregivers, as required under the* Excellent Care for All Act, 2010 *(Act).*

  Status: Hospital 1: In the process of being implemented by March 2016.
  Hospital 2: Little or no progress.
  Hospital 3: Little or no progress.

Details

In our 2013 audit, we reported that according to the *Excellent Care for All Act*, every health care organization should survey patients and their caregivers at least once every fiscal year. Our audit found that none of the hospitals we visited surveyed caregivers and only two hospitals conducted surveys of outpatients.

Hospital 1 initiated a pilot caregiver survey on one inpatient unit as of March 2015. The pilot has been completed and has been implemented to all inpatient units except for palliative care. This hospital is currently designing a caregiver survey for the caregivers of palliative care patients.

Hospital 2 said it does not have a caregiver survey because most rehabilitation patients are independent and in control of their own decisions. It told us that, for the subset of patients that are not independent, caregivers can fill out the survey on the patient's behalf. The survey also allows patients to provide feedback on caregiver burden, and Hospital 2 encourages caregivers to fill out the survey with the patients. Hospital 2 informed us that it will look into creating a caregiver survey in the spring of 2016.

Hospital 3 has made little progress in implementing our recommendation, but stated that it will be reviewing the feasibility of caregiver surveys by June 2016.

- *conduct outpatient satisfaction surveys.*

Status: Hospital 1 and 3: Fully implemented.
Hospital 2: In the process of being implemented by March 2017.

Details

Hospital 1 has already implemented outpatient satisfaction surveys and this process is ongoing.

Hospital 2 has surveyed patient satisfaction in some of its outpatient areas. This hospital informed us that outpatient surveys in specialized rehabilitation have yet to be developed and will likely be implemented by fiscal year 2016/17.

Hospital 3 has been conducting outpatient satisfaction surveys since our audit in 2013.

Chapter 4

Ministry of Government and Consumer Services

Section 4.09 ServiceOntario

Follow-up to VFM Section 3.09, *2013 Annual Report*

RECOMMENDATION STATUS OVERVIEW

	# of Actions Recommended	Status of Actions Recommended			
		Fully Implemented	**In Process of Being Implemented**	**Little or No Progress**	**Will Not Be Implemented**
Recommendation 1	3	2			1
Recommendation 2	4	3		1	
Recommendation 3	1			1	
Recommendation 4	7	2	4		1
Recommendation 5	4	1	2	1	
Recommendation 6	2	1			1
Total	**21**	**9**	**6**	**3**	**3**
%	**100**	**43**	**29**	**14**	**14**

Background

ServiceOntario, a separate part of the Ministry of Government and Consumer Services (formerly the Ministry of Government Services), has a mandate to provide centralized service delivery to individuals and businesses for a number of programs involving vital events, such as birth, marriage and death certificates; business services, including company registrations; personal property security registration and services; and land registration services.

ServiceOntario also processes, for 14 other ministries, high-volume routine transactions, most significantly driver's licence renewals and vehicle registrations, and health-card renewals and registrations.

In the 2014/15 fiscal year, ServiceOntario handled more than 37.5 million transactions (35 million in 2012/13), with in-person service centres accounting for 70% and the Internet for 30% (70% in-person and 30% Internet in 2012/13). ServiceOntario also handled about 11.4 million requests (12 million in 2012/13) for information and referrals—57% of these were made online, 34% through its telephone contact centres and 9% at in-person service centres (55% online, 38% through telephone contact centres and 7% in-person in 2012/13).

In our 2013 audit, we found that ServiceOntario had made substantial accomplishments in centralizing service and was generally meeting its service level targets, but it needed to improve in several key areas. It needed to continue to strengthen its systems and procedures to reduce service delivery costs, effectively monitor service levels and customer satisfaction, and reduce its risks in issuing and managing licences, certifications, registrations and permits.

In our *2013 Annual Report*, we reported the following findings:

- In 2012/13, only 30% of ServiceOntario transactions were done online, well short of its 2008 forecast that 55% to 60% of transactions would be online by 2012. Further savings could be achieved if ServiceOntario could encourage people to switch to doing business online instead of in person. For instance, we estimated that operating costs would decrease by approximately $2.9 million annually if 50% more licence plate sticker renewals were done online.
- ServiceOntario improved its website services, but its online customer satisfaction rating remained from 71% to 75% since 2009/10.
- ServiceOntario rated 43% of its 289 in-person service centres as high-risk locations because of the number of processing errors uncovered by its audits. For example, errors included incorrect financial charges, missing signatures on health-card applications, renewing the wrong licence plate number, and transferring a vehicle to a name other than the one on the application.
- ServiceOntario did not measure or report on the customer wait at peak times or at specific service centres, which often far exceeded its target time of 15 minutes.
- In 2012/13, none of ServiceOntario's seven telephone contact centres met its service standards for answering calls. The range of success in answering calls within targeted times was 51% to 77%, compared to its goal of 80%.
- Significant fraud risk still exists 18 years after the government announced its plan to reduce costs and risks by replacing the red-and-white health card, which has no expiry date, with the more secure photo health card. As of August 1, 2013, 3.1 million red-and-white cards remained in circulation, or 23% of the total of 13.4 million health cards issued in Ontario.
- We estimated that as of March 31, 2013, approximately 1,500 people in Ontario had been issued duplicate health cards, increasing the risk of misuse. As well, more than 15,000 active health cards and 1,400 driver's licences were circulating in the names of people who had been reported to ServiceOntario as deceased.
- ServiceOntario had weak processes for issuing and controlling accessible parking permits to ensure they were not being misused by people who did not require them.
- ServiceOntario did not verify that people registering large commercial agricultural vehicles—which are registered at a reduced rate compared to other commercial vehicles—were indeed farmers. We estimated that this could be costing the province about $5 million annually.
- ServiceOntario had no plans in place to stop printing birth certificates on paper and switch to higher security polymer (plastic) documents and a new design to minimize identity theft, forgery and loss as recommended by the Vital Statistics Council for Canada. Eight other provinces have already switched to polymer documents.

We made a number of recommendations for improvement and received commitments from the Ministry that it would take action to address our concerns.

Status of Actions Taken on Recommendations

ServiceOntario has made progress on implementing most of the recommendations we made in our *2013 Annual Report*, which were aimed at improving the delivery of cost-effective services to Ontarians. Nine out of our 21 recommendations have been fully implemented. In particular, to lower costs ServiceOntario has reduced its number of in-person service centres and implemented more efficient full-time/part-time staffing mixes at the remaining publicly run in-person service centres. As well, it has expanded its privately run in-person service centres, which cost less to operate than its publicly run in-person service centres. ServiceOntario implemented measures to better monitor customer wait times during peak hours at both publicly run and privately run in-person service centres, and to monitor and reduce transaction processing errors.

Progress has been made on another six recommendations that will take more time to implement. At the time of our follow-up, ServiceOntario was assessing the viability of a government-wide identity approach and digital government strategy, and reviewing potential smart card models for Ontario. It expected to complete the business case by fall 2015; however, no date had been established for presenting the proposal to Cabinet for its consideration and approval.

We noted that ServiceOntario had made little or no progress on three of our recommendations, including making a case to government for the need to lower fees so that they reflect the actual costs of transactions, particularly for less costly on-line services; conducting client satisfaction surveys at its in-person service centres without full knowledge of counter staff(who may be motivated to provide their best service only on the survey day); and sharing address-change information between ministries' databases (the Ministry decided it would pursue this only as part of the development of the business case for smart cards).

In accordance with one of our recommendations, ServiceOntario had analyzed barriers to customers using online services and was continuing to make changes to its programs and client notifications to better promote its online services, which are less costly to operate. On the other hand, ServiceOntario did not implement a related recommendation to examine possible changes it could make to promote greater use of online transactions (including changing its pricing strategy). As a result, no significant progress had been made since our 2013 audit in increasing the proportion of ServiceOntario customers who complete their transactions online instead of in person at a service centre.

As well, ServiceOntario has decided that it will not implement another two of our recommendations. Instead of ensuring that it completes a sufficient number of random audits of guarantors on birth certificate applications, ServiceOntario discontinued these audits entirely in August 2014, with no alternative verification procedure to replace them. It was also not planning to periodically test its software copy of the land registration system to ensure it can be used if Teranet, its sole service provider, ceases to operate. ServiceOntario determined that doing this would be too expensive, so it still did not know if its copy of the software was reliable when we completed our follow-up. We continue to believe that our recommendations are of value and that it would be prudent for ServiceOntario to implement them.

The status of each of our recommendations is as follows.

Service Delivery Costs

Recommendation 1

To help further reduce service delivery costs, ServiceOntario should:

- *better identify the reasons people opt for in-person service rather than use the Internet,*
  Status: Fully implemented.

Details

Since our 2013 audit, ServiceOntario has expanded its online services. ServiceOntario reported that in September 2013 Ontario became the first province in Canada to provide drivers with an online driver's licence renewal service. From September 2013 until May 2015, 366,219 online driver's licence renewals were completed, representing 12.2% of all driver's licence renewal transactions in Ontario. ServiceOntario also launched in September 2014 the Ministry of the Attorney General's small claims e-filing pilot project to allow on-line accepting of fee payments, and in March 2015, the project was rolled out province-wide at all courts. ServiceOntario launched an online service for processing security guard licences for the Ministry of Community Safety and Correctional Services in October 2014. Before then, licensing services were only available at one in-person retail office or by mail. ServiceOntario informed us that the change has resulted in a 13% reduction in returned applications between April 2014 and February 2015, and that over 80% of applicants now apply for security guard licences online.

From June to August 2013, ServiceOntario contracted an external market researcher to conduct a two-phase study to help it better understand customer behaviour with respect to the use of ServiceOntario's service delivery channels. The first phase was an online survey designed to explore the barriers to online usage (where lack of Internet access is not a barrier), the demographic and attitudinal differences between online users and non-online users, and the likelihood of drivers using its online service delivery channel. A total of 601 consumers who had used ServiceOntario services in the previous six months were surveyed. The key takeaway from the online survey was that greater awareness of the services that are available online was needed. A workshop discussion about the survey results held with representatives from ServiceOntario, the market researcher and an external advertising agency determined that messaging should focus on licence-plate sticker renewal (this is one of the most frequently used services, but only 50%–55% of users surveyed were aware that it can be done online). The second phase of the research focused on consumers who did not know that they could renew their licence-plate sticker online. The market researcher tested the effectiveness of a series of messages about online renewal to identify which ones were most persuasive. Based on the survey results, the market researcher made recommendations on how to develop messaging that encourages people to access services online, and established five early-stage communication ideas for online licence plate sticker renewal. Based on the market research study's findings, ServiceOntario is working on updating its action plan to encourage higher usage of its online service delivery channel. For example, it updated its vehicle licence-renewal notice, changing the wording and redesigning the format of the application form, to encourage eligible customers to shift to the online channel to complete their transactions.

In October 2014, ServiceOntario started a new behavioural insights project. It found that the five most likely barriers to customers' use of online government services to complete a vehicle licence-plate sticker renewal included: customers' mistaken belief that if they received a form in the mail, they were obligated to return it that way; lack of awareness of online services; privacy concerns; risk of delay in receiving a renewal sticker when using online services; and force of habit in going to an in-person service centre to obtain a renewal sticker immediately. It also conducted an internal feasibility study in November 2014 to investigate the redesign of its renewal notices. After mailing out renewal notices with updated messaging encouraging customers to renew their vehicle licence online in February 2015, ServiceOntario reported online renewal had increased by 4.3%. At the time of our follow-up, ServiceOntario was collaborating with the Ministry of Transportation to replace the current vehicle licence renewal notice with a letter or postcard format.

Also, as of July 2014, customers can use their mobile devices to renew driver's licences and licence plate stickers, and to order personalized licence plates, used vehicle information packages, and driver or vehicle records. Before this time, the ServiceOntario website was not mobile-device friendly.

In December 2014, ServiceOntario established its new eight-year strategic plan. One of the plan's five goals is to create a customer-centric service design framework to engage with customers and to better understand what motivates them to choose a particular service channel. ServiceOntario informed us that a significant activity under this goal in 2015 was retaining an external vendor to conduct usability testing to improve the design of online business services.

and examine possible changes it could make, including to its pricing strategy, to promote greater use of online transactions; and

Status: Will not be implemented. We believe this recommendation should still be implemented.

Details

At the time of our 2013 audit, only ServiceOntario's business registration fees were higher for in-person services than online. Our office recommended that this type of fee structure should be explored for other services as well. ServiceOntario said it would explore different approaches to accelerate the shift to online services, potentially including a differential fee structure or mandatory use of electronic services. At the time of our follow-up, ServiceOntario informed us that a differential fee structure will not be explored because changes to prices for services require a Minister's order and Treasury Board approval. ServiceOntario also indicated that it has made such requests in the past, though not recently, and they were not approved.

ServiceOntario's total transactions had increased by approximately 7% from the time of our audit in 2012/13 to 2014/15. This included an increase in the number of online service transactions. However, the percentage of total transactions completed online remained at 30% in the same time period despite the initiatives described above and ServiceOntario's efforts described earlier to better identify the reasons people opt for in-person service. This indicates that ServiceOntario's efforts have not been successful so far, and we continue to believe that further changes are needed to promote an increase in the use of online transactions.

- *examine ways to expedite reducing operating costs at its publicly run in-person service centres to bring them closer to the already-lower cost of commissions paid at the privately run in-person service centres.*

  Status: Fully implemented.

Details

ServiceOntario reported that, from 2011/12 to 2013/14, customer interactions at its publicly run in-person service centres increased by 1.17 million (4.2%), operating expenses decreased by $5.04 million (3.6%), and the cost per customer interaction decreased by $0.38 (7.4%). ServiceOntario credited the improvements and $11 million in cost savings to numerous business improvement and transformational initiatives.

During the 2013 audit, ServiceOntario calculated that it could most efficiently meet its service-level standards by employing a mix of 70% full-time staff and 30% part-time staff at each in-person service centre. As of July 31, 2015, ServiceOntario has moved from having virtually all staff working full-time to a more cost-effective ratio of 55% full-time and 45% part-time.

ServiceOntario also informed us that it has adjusted operating hours at its retail offices, closed some publicly run in-person service centres (which are more costly to operate) and opened new privately run in-person service centres (which are less costly to operate). Extended operating hours at 40 publicly run in-person service centres have been reduced, or removed altogether. ServiceOntario has also reduced core operating hours in smaller communities. And it closed six publicly run in-person service centres after conducting business analyses of volume, lease terms and opportunities to consolidate. Since our 2013 audit, ServiceOntario has expanded the capacity of its more cost-effective privately run in-person service centres. It has opened five new privately run centres, added temporary wickets in six centres, and added permanent wickets in 25 centres.

Service Levels

Recommendation 2

To ensure that ServiceOntario has appropriate management information that would allow it to further improve its service and increase client satisfaction, it should:

- *collect data and report on peak-hour wait times at both the in-person service centres it runs itself and those run by private operators, as well as examine and address the reasons for long wait times at many of the large, urban in-person service centres;*

  Status: Fully Implemented.

Details

At the time of our 2013 audit, ServiceOntario measured wait time performance using the monthly average of samples for publicly run in-person service centres only. As of September 2014, ServiceOntario had implemented a new methodology at both publicly and privately run in-person service centres to determine the relationship between customers and transaction volumes, which allows it to estimate the number of customers waiting more than 20 minutes. ServiceOntario reported the new methodology has helped it to identify five additional sites with long wait times. ServiceOntario's September 2014 Wait Time Report (monthly) analysis detailed publicly and privately run in-person service centres using the manual wait-time sampling system (222 of 290 offices). In these offices, an estimated 92% of customers were attended to in less than 20 minutes; 23 offices (4 public, 19 private) were identified as having wait-time challenges (defined as over 20% of customers waiting for more than 20 minutes).

To further improve monitoring of customer wait times at its largest publicly run in-person service centres, ServiceOntario plans to modernize its customer queuing system by implementing a modern, scalable and portable system in many of its large publicly run in-person service centres to manage the flow of customer traffic. In March 2015, ServiceOntario requested internal approval for the new queuing system, which was expected to cost $3.75 million over five years (20 existing sites shift to the new system immediately for $2.54 million and 16 new sites to be added for $1.21 million). It received approval to proceed in August 2015, and plans to implement the new system at the first 20 offices by May 2016. The next phase of implementation at 16 sites will include further enhancements, such as robust reporting, data collection, appointment booking and mobile/SMS capabilities.

ServiceOntario informed us that in 2014/15 it has increased capacity at its large, urban privately run in-person service centres to address growing customer volumes. Five centres were established in busy communities, including Toronto, Hamilton, Brampton, Mississauga and Whitby. ServiceOntario also reviewed the need for wickets at privately run in-person centres across the province, which resulted in re-allocations and new wicket additions to high-volume centres.

- *examine why none of the seven telephone contact centres met the service levels established for answering calls from the public, and take steps to improve client satisfaction ratings for these services as well as for online transactions;*

  Status: Fully implemented.

Details

In response to this recommendation, ServiceOntario mentioned that its contact centres experienced a decrease in performance levels in 2013 as it transitioned to a new call centre technology platform. At the time of our follow-up, ServiceOntario reported that it had optimized a new technology called "Enterprise Contact Centre Solutions" and subsequently increased service level performance in 2014. From September 2014 to February 2015, the success rate for answering calls within the targeted time was in the 75-85% range, and the average queue time at its ServiceOntario contact centres was 32 seconds (exceeding the Ontario Public Service standard of 120 seconds). With regard to contact centre customer satisfaction, ServiceOntario reported that its rating in the fourth quarter of 2014/15 was 91% (compared to 64% in the fourth quarter of 2012/13).

In addition, as a part of ServiceOntario's new eight-year strategic plan, ServiceOntario hired an external marketing agency in 2015 to develop customer behavioural user personas, which provided information on customers' needs and behavior patterns, based on surveys and interviews. ServiceOntario plans to use these personas for its continuous improvement program for online services.

- *consider a method of surveying clients that is not done with full knowledge of counter staff at in-person service centres, who may then be highly motivated to provide their best service only on survey day; and*
  Status: Little or no progress.

Details

Our 2013 audit found that site managers were notified in advance of customer satisfaction surveys, and counter staff were fully aware that customers would be questioned since it was done within their sight. Based on consultation with an external market researcher, ServiceOntario modified its In-Person Channel Customer Satisfaction Survey by notifying directors and/or managers of the survey process at the beginning of the fiscal year, instead of providing advance notice of the surveying days. ServiceOntario also informed us that the new process to hire surveyors screened out friends and/or relatives of ServiceOntario employees, and that interviews were conducted outside the centre when possible. However, we noted that ServiceOntario has done little to satisfy our recommendation since it continues to survey customers just outside the premises, which is still within sight of counter staff. Therefore, it was not unexpected that ServiceOntario reported that customer satisfaction scores did not change after modifications to its survey process. At the time of our follow-up, ServiceOntario indicated that it had no further plans to change its surveying methods.

- *devise a method for counter staff to report on why customers are turned away for such services as health-card and driver and vehicle transactions, and use this data to improve customer service where required.*
  Status: Fully implemented.

Details

Based on discussions with its staff, ServiceOntario has determined that the primary reason customers are turned away is they do not bring all required documentation during in-person visits. This is due to inconsistent requirements for driver's licence and health card renewals. ServiceOntario indicated at the time of our follow-up that it had begun to address the issue of consistent documentation, and so it will not be necessary any longer to devise and implement an ongoing method to report on why customers are turned away.

ServiceOntario has engaged the Ministry of Transportation and the Ministry of Health and Long-Term Care to discuss modernizing and aligning policies and program requirements (as these policies are owned by each ministry). ServiceOntario has also undertaken steps to address health card turn-aways. In partnership with the Ministry of Health, ServiceOntario has created a more user-friendly Ontario Health Insurance Coverage Official Documents List. It has updated its website to ensure all health card information is current and easy to find, and has used advertising to remind customers of what to bring with them.

From April to September 2013, ServiceOntario established front-line staff focus groups to identify the reasons customers were being turned away. The groups focused on ServiceOntario's publicly run in-person service centre in Brampton, and found that 80% of turn-aways resulted from customers visiting with incomplete documentation. ServiceOntario noted that the groups most affected were youth, new immigrants and people who speak English as a second language. In a six-week marketing campaign held in Brampton from October to November 2014, ServiceOntario developed brochures and had them translated into six languages, as well as online banners and print advertisements. However, ServiceOntario informed us that the on-site changes did not result in any significant improvements in Brampton because visitors needed to know in advance which documents were required in order to qualify for a health card; as a result, ServiceOntario decided not to implement the focus group marketing strategies in any other in-person centre.

User Fees

Recommendation 3

To ensure that registration-related fees are set at levels that would recover the costs of providing services when it is reasonable and practical to do so and also to meet the legal requirement that fees not be set at excessive amounts, ServiceOntario should conduct a full costing and revenue analysis, and develop a strategy with time frames for restructuring its fees.

Status: Little or no progress.

Details

In October 2014, ServiceOntario completed an expenditure analysis for each of the four lines of business that it manages end-to-end: vital events, business registrations, personal property and real property. This was the first time that ServiceOntario conducted such an analysis. It involved calculating the cost per transaction for each line of business. The analysis showed that, just as we noted in our 2013 audit, ServiceOntario continued to charge fees for certain lines of businesses that are significantly greater than the costs it incurred. Nevertheless, ServiceOntario has not used this information to recommend any changes to its fees to the Minister of Government and Consumer Services.

ServiceOntario also had not developed a strategy with time frames for restructuring its fees. Instead, all it committed to do in the future was to complete only an updated revenue and fee analysis for each line of business after it has completed several improvement initiatives. For vital events, ServiceOntario has committed to conducting a detailed fee analysis in the last quarter of the 2015/16 fiscal year or the first quarter of 2016/17 (after the polymer birth certificate, which launched in April 2015, is fully implemented). It had yet to determine a timeline for analyzing its fees for business registrations, but it expected to conduct the analysis before the launch of the new Ontario Business Information System, which has been postponed as it requires legislation to enable its use of new electronic services. ServiceOntario also could not provide a timeline for analyzing personal property fees, stating only that it will be completed after its Personal Property Registration system is refreshed, for which there is no timetable established at this time. Finally, the Ministry was not planning on conducting an updated fee analysis for real property transactions, even though fees were scheduled to increase November 2, 2015, and each year thereafter by the inflation adjustment formula set out in the Minister's Order dated December 16, 2010.

Issuing and Managing Licences, Certifications, Registrations and Permits

Recommendation 4

To improve service and security surrounding the issuing and management of licences, certificates, registrations, and permits that it administers, ServiceOntario should:

- *ensure that it completes enough guarantor audits for birth certificate applications,*

  Status: Will not be implemented. We believe that it continues to be prudent for ServiceOntario to randomly verify guarantor information to help ensure that the information provided about the applicant is correct.

Details

The *Vital Statistics Act* requires guarantors for applications for birth certificates for anyone over the age of nine. After this requirement was introduced in 2001, ServiceOntario staff regularly conducted random audits of guarantors' information to validate their qualifications, including having Canadian citizenship, having known the applicant for at least two years, and holding a public position or professional occupation that meets the requirements stated in the Act.

In 2014, ServiceOntario completed an analysis on the effectiveness of guarantor audits for birth certificate applications and determined that the random audit of guarantors did not add value to the existing application screening process for verifying the eligibility of applicants. ServiceOntario indicated that the existing guarantor audit process is only used to verify the credentials of the guarantor, not to verify that the applicant is entitled to a birth certificate or that the information provided about the applicant is correct. The audit process was therefore eliminated in August 2014. However, ServiceOntario will retain the requirement to provide guarantor information because, if required, this information can be used to verify whether or not statements that applicants have provided are accurate. With respect to verifying the eligibility of applicants, ServiceOntario will continue its existing authentication process by comparing the information provided by the applicant with the birth registration on record.

and consider updating its birth certificate identity document to the newer polymer composition and design standard to minimize identity theft, forgery and loss;

Status: Fully implemented.

Details

ServiceOntario decided to go ahead with polymer birth certificates after conducting further analysis on their feasibility by assessing cost implications and looking at the experiences of other Canadian jurisdictions. In April 2015, ServiceOntario started issuing polymer birth certificates.

- *reassess the processes in use and supervisory oversight over counter staff at in-person service centres to better ensure policies and procedures are followed for processing higher-risk transactions and verifying that customers provide proper documents when registering for health cards;*

  Status: In the process of being implemented by March 31, 2016.

Details

In our 2013 audit we found that ServiceOntario's quality assurance processes were uncovering a very high number of transaction errors even though staff received ongoing support with regard to conducting higher-risk transactions and transactions that require policy interpretation and adjudication. In February 2015, ServiceOntario initiated the ServiceOntario Improvement Project to address processing errors uncovered through their quality assurance audits, specifically in scenarios where original documents cannot be authenticated electronically for assessments that occur during original registrations (for example, a guarantor form used in place of a residency document).

The project engaged a task force of subject matter experts who analyzed potentially high-risk health card transactions and then made recommendations on how to mitigate risk. The first phase of the project was completed in February 2015. The task force's recommendations called for additional staff training, improved procedure guidelines for use by counter staff and requiring a manager to review documents before counter staff complete a high-risk transaction. ServiceOntario started to develop and implement these recommendations during the project's second phase, which began in April 2015 and is expected to be completed by March 31, 2016.

- *complete its long-delayed conversion from the old red-and-white health cards so that all Ontarians are carrying the more secure photo health cards that reduce the risk of fraudulent medical claims;*

Status: In the process of being implemented by March 31, 2018.

Details

In February 2015, ServiceOntario received government approval for its conversion strategy, with all red-and-white health cards to be removed from circulation by the end of 2018. It has set an internal, earlier target for completion by the end of 2017. ServiceOntario reported that, from April 2013 to March 31, 2015, the number of cardholders invited weekly to convert to a new photo health card increased from 750 to 24,000. It also reported that 360,986 conversions were completed in 2014/15 (a 79% increase compared to 2013/14). In total, more than 436,000 red-and-white cards were removed from circulation in 2014/15 (a nearly 100% increase compared to previous years). The reasons they were removed from circulation included cardholder deaths and the Ministry of Health and Long-Term Care cancelling inactive cards. As of the July 31, 2015, approximately 200,000 conversions were completed from the beginning of the fiscal year starting April 1, 2015. As of March 31, 2015, 2.5 million red-and-white health cards remain in circulation compared to 3.18 million as of March 31, 2013.

- *examine the benefits and cost savings from creating a smart card that would combine more than one government ID card, and set timelines to achieve them;*

Status: In the process of being implemented. This is a long-term project which may extend to five years or more.

Details

In September 2014, ServiceOntario created a focus group that consulted with the Ministries of Transportation, Health and Long-Term Care, and Natural Resources and Forestry. The group concluded that the business case for implementing a single card was not feasible based solely on the savings represented by manufacturing only one type of card. The group determined that it would need to also quantify and include the benefits and savings that would incur to ministries' programs by having more efficient operations from using a common smart card, such as reducing the need to input information on clients by each program area and sharing information between programs. According to ServiceOntario, without including program-area operational efficiencies, factors contributing to the negative financial projections included the cost of initial client registration, client data harmonization processes and the compensation structure of the current card manufacturing contract. ServiceOntario and the partner ministries projected that, if program area operational efficiencies are not included, a net savings of approximately $500,000 would accrue (at the earliest, in year six of implementation), along with a payback period of 12 years and a ten-year net present value of negative $7 million.

ServiceOntario also engaged an external firm in 2014 to complete a jurisdictional analysis and develop the business case for conversion to smart cards in Ontario. According to ServiceOntario, research on best practices that emerged from this work indicates that an integrated smart card is a key to transforming government services to a one-window approach, and to help reduce fraud.

At the time of our follow up, ServiceOntario was developing a broader detailed business case that would take into account the operational efficiencies ministries would gain by having a government-wide identity approach and digital government strategy, and a common smart card. ServiceOntario informed us that the technical assessment, preliminary policy review and initial consultations would be completed by the first quarter of 2016/17.

- *improve verification requirements for applications to make sure that vehicles registered as farm vehicles, and thus subject to a much lower annual registration fee than other commercial vehicles, are indeed used for farm purposes; and*

  Status: Fully implemented.

Details

Effective January 1, 2015, the Ministry of Transportation implemented a new process that requires applicants for farm plate registration to provide proof of a farming business. Acceptable proof includes an accredited farm organization membership card, Gross Farm Income Exemption Certificate, a letter from the Ministry of Agriculture, Food and Rural Affairs' Appeal Tribunal indicating religious exemption, or a letter from Agricorp indicating the individual's Farm Business Registration number. In order to make required proof of farming business consistent across ministries, the Ministry of Transportation aligned the definition of "farmer" under the *Highway Traffic Act* with the definition used by the Ministry of Agriculture, Food and Rural Affairs in the *Farm Registration and Farm Organization Funding Act*.

- *improve processes for issuing accessible parking permits, and introduce changes that would make it easier to identify abusers.*

  Status: In the process of being implemented by December 2015.

Details

ServiceOntario consulted municipalities on tracking the number of Accessible Parking Permits seized by their law enforcement operations in late 2013, which resulted in ServiceOntario establishing an updated process for municipalities to report and return seized permits.

By December 31, 2015, ServiceOntario will implement a new policy on Accessible Parking Permits that would require customers to show identification (as well as proof of authorization if acting on someone's behalf) in order to get a new permit or renew an existing permit. Beginning in late 2015, ServiceOntario also plans to cross reference parking permits with death certificates issued by the Ontario Office of the Registrar General to cancel parking permits belonging to individuals who are deceased.

At the time of our follow up, ServiceOntario was also planning a procurement process that would enable vendors to submit proposals for the production of parking permits that will meet ServiceOntario's security, durability and cost-effectiveness requirements. It is currently putting together information on the specific security features required to ensure copy resistance; tamper, erasure and modification resistance; and counterfeit resistance (for example, holograms and embossing). ServiceOntario had not developed a timeline for completion of the procurement process at the time of our follow up.

In our 2013 report, ServiceOntario indicated that it would explore opportunities for collaborating with the Ministry of Transportation to incorporate the Accessible Parking Permits program into the Medical Reporting Modernization Project, which would allow regulated health practitioners to facilitate the direct submission of approved Accessible Parking Permit applications and the immediate production of temporary permits. Since then, ServiceOntario has engaged with the Ministry of Transportation on this multi-year initiative, renamed "Electronic Submissions for Medical Review," which will meet the needs of the Accessible Parking Permits program. At the time of our follow-up, ServiceOntario and the Ministry of Transportation had concluded their initial feasibility discussions, but no date had been established for completion.

Quality Control Over Processing Transactions

Recommendation 5

To ensure that transactions are processed in accordance with legislation and established procedures, and reduce the risk of fraud and misuse of government-issued identity documents, ServiceOntario should:

- *regularly identify from its audit activities the types and frequency of errors found that can be used to target staff training and changes to its systems and procedures needed to reduce the high transaction error rate at many of its service centres;*
  Status: In the process of being implemented by March 31, 2016.

Details

In early 2014, ServiceOntario established a task force under its Service Quality Improvement Project to improve driver and vehicle transactions. ServiceOntario informed us that the task force has addressed processing errors uncovered in their audits and that fiscal performance data reflected a 99.95% accuracy rate (when considering only more significant errors) in the completion of transactions, which equates to roughly 500 more significant defects per million transactions. ServiceOntario informed us that since our 2013 audit it has made substantial changes to the Licensing and Control System, which is the Ministry of Transportation's system used to process and record driver and vehicle transactions. Now only more significant errors are identified and reported, allowing it to focus only on these. In November 2013, ServiceOntario introduced the use of data analytics to monitor transactions in the Licensing and Control System. Some of the functionalities of the auditing software include detecting and correcting processing errors and identifying instances of multiple transactions when only one was required. Along with executive reporting on data analytics, management at ServiceOntario is now able to obtain results by region, manager, office or operator, allowing it to continually improve its operations. ServiceOntario informed us that this data is not consolidated by region but that it was investigating options to make it easier for various internal groups to access regional data.

At the time of our follow-up, ServiceOntario was evaluating the possibility of expanding the use of data analytics to other business lines, such as analyzing health card transactions; however, no date has been established for completing this analysis. In addition to considering data analytic tools to detect errors as discussed earlier, in February 2015 the ServiceOntario Improvement Project has developed recommendations for improving training, guidelines and management oversight over high risk health card transactions. Since April 2015 it was in the process of implementing the recommendations and expected to be completed by March 31, 2016.

ServiceOntario is also improving its Quality Assurance Audit program, which provides performance diagnostics by measuring program integrity, customer experience, stock management and financial monitoring. The program was implemented in 2006 to ensure that services were being delivered consistently with program policy. Improvements to the program are based on our 2013 audit, a 2014 Internal Audit report, and best practices around industry quality assurance and risk management. The redesigned program was implemented in July 2015 at both publicly and privately run in-person service centres.

- *recommend to its partner ministries the need for further automated and other processing controls to improve the security and integrity of registration and licensing databases;*
  Date when ServiceOntario has committed to fully implement recommended action: March 31, 2016.

Details

Since our 2013 audit, ServiceOntario has worked with partner ministries, including the Ministry of Health and Long-Term Care and the Ministry of Transportation, to improve the security and integrity of registration and licensing databases by sharing its information from the Vital Statistics database. For instance, ServiceOntario has worked on further sharing of birth, change of name and death information with the Ministry of Health and Long-Term Care and with the Ministry of Transportation, updating their health card and driver and vehicle licensing databases, respectively. Revised data-sharing agreements were signed with both ministries in 2013 and 2014 that allowed for sharing death registration information. ServiceOntario says it will begin assessing processes for sharing birth data information from the vital statistics database with the Ministry of Health and Long-Term Care in the fall of 2015 with a plan to finalize new processes by March 31, 2016. For example, ServiceOntario was planning to amend a birth registration in the case of a name change and provide the information to the Ministry of Health and Long-Term Care.

- *improve its systems for cancelling identity documents for people who have died; and*
  Status: Fully implemented.

Details

In addition to providing regular notification of deaths to the ministries of Health and Long-Term Care and Transportation, ServiceOntario shared historical death data reports with the Ministry of Health and Long-Term Care that were matched against the health card database. This made it possible to identify and deactivate 29,627 health cards that were still in circulation although the cardholders had been deceased. ServiceOntario expects to perform further analysis on partial data matches to inform additional changes to death notification systems.

- *co-ordinate with the Ministry of Health and Long-term Care, the Ministry of Transportation and the Office of the Registrar General, as well as the Office of the Privacy Commissioner, to introduce measures such as limited sharing of current addresses among databases in order to mitigate the risks posed by erroneous and duplicate ID documents.*
  Status: Little or no progress.

Details

ServiceOntario indicated that the sharing of address change information between ministries' databases, including this information for the health card records of the Ministry of Health and Long-Term Care and this information for the driver and vehicle registration records of the Ministry of Transportation, will depend on a policy framework that supports further ministry integration (including the concept of the smart card, which was discussed in the details for Recommendation #4) and that provides the required policy and/or legislative authority for data sharing. This is because the sharing of address change information requires policy and legal consultation among multiple ministries and the Information and Privacy Commissioner, and amendments to existing agreements with partner ministries. As a result, ServiceOntario decided that any changes to allow for sharing of address change information will be completed as part of the development of the business case for the smart card. No date has been established for completion.

Nevertheless, as noted previously, ServiceOntario has made progress in other areas, including sharing death data reports from its Vital Statistics database with the Ministry of Health and Long-Term Care and the Ministry of Transportation, and is also in discussions with the former to share name-change information.

Teranet IT Performance Monitoring

Recommendation 6

To better ensure the ongoing reliability and availability of Ontario's Electronic Land Registration System, ServiceOntario should obtain independent assurance that Teranet's performance reports, and its disaster recovery plans and security measures, meet industry-accepted standards and are validated routinely.

Status: Fully implemented.

Details

Following our recommendation, ServiceOntario and Teranet agreed to have an external firm with management, auditing and IT expertise examine the design of controls related to the electronic land registration services, including over disaster recovery, organization structure, user access to data, and monthly reporting on performance. The firm issued a report concluding that in all material respects, Teranet was meeting the control objectives that were required as part of its agreement with the Ministry of Government Services to ensure the system operated reliably and as intended, as of April 30, 2014. It was also ensuring that the controls in place were suitably designed to provide reasonable assurance that systems operated effectively.

In May 2015, ServiceOntario received a detailed audit report from the firm that provided evidence that the controls identified as of April 30, 2014 were in place at Teranet and operating effectively during the one year period from April 1, 2014, to March 31, 2015. ServiceOntario will continue to receive these reports annually.

ServiceOntario should also periodically test its copy of the land registry program software.

Status: Will not be implemented. We continue to believe that ServiceOntario should independently verify the land registry program software to ensure it can use the program without further support and co-operation from Teranet.

Details

ServiceOntario has decided not to periodically independently test the source code because the cost is too high. Instead, it will rely on annual audits by an external auditor to continue to validate that Teranet's operating controls over electronic land registration services are effective.

ServiceOntario's investigation into cost-effective means to independently verify and test its copy of the land registry program software indicated that the process would require implementing and maintaining a mirrored IT system. ServiceOntario informed us that it received an estimate from Teranet for the cost of acquiring IT systems and independently testing the source code, which was approximately $3 million in the first year, and $320,000 annually thereafter.

ServiceOntario consulted with external vendors on the scope of effort required to establish an arrangement that would allow it to rely on the copy of source code. Those consultations indicated that the costs and resources required would be significant because of the learning curve that any developer outside Teranet would face in trying to rebuild the system. ServiceOntario also examined the estimate received from Teranet with the Government Services Integration Cluster, which recommended that duplication of the system would represent poor value for money when there are alternate business continuity provisions in place in the Ministry's agreement with Teranet. The agreement includes provisions for an orderly transfer of the land registry system to either ServiceOntario or an alternate service provider.

As a result of not acting on our recommendation, ServiceOntario continued to not know if it has a reliable copy of the land registry program software, or even if the copy of the software it receives is complete and functional.

Chapter 4

Section 4.10

Ministry of Community and Social Services

Violence Against Women

Follow-up to VFM Section 3.10, *2013 Annual Report*

RECOMMENDATION STATUS OVERVIEW

	# of Actions Recommended	Status of Actions Recommended			
		Fully Implemented	In Process of Being Implemented	Little or No Progress	Will Not Be Implemented
Recommendation 1	1		1		
Recommendation 2	2		2		
Recommendation 3	2		2		
Recommendation 4	3	1		2	
Recommendation 5	2			2	
Recommendation 6	1		1		
Recommendation 7	2		2		
Recommendation 8	2	1	1		
Total	**15**	**2**	**9**	**4**	**0**
%	**100**	**13**	**60**	**27**	**0**

Background

The Ministry of Community and Social Services (Ministry) provides a number of community programs and services to help women and their children who are victims of domestic violence find safety and rebuild their lives.

The Ministry provides transfer payments to more than 200 community not-for-profit agencies, which are governed by volunteer boards of directors, to deliver supports and services to abused women and their children. In 2014/15, the Ministry spent $145 million on transfer payments ($142 million in 2012/13), of which $83 million went toward the operation of 96 shelters ($82 million for 95 shelters in 2012/13) and $62 million toward other supportive services ($60 million in 2012/13), including community-based counselling, crisis help lines, and services to help women secure more permanent housing.

During the last decade, Ontario released two action plans to address violence against women: the Domestic Violence Action Plan (2004) and the Sexual Violence Action Plan (2011). As well, in 2009, the Domestic Violence Advisory Council (Council), created by the Minister Responsible for Women's Issues, released a report with 45 recommendations for improving the system of services for abused women and their children. The Ontario Women's Directorate (Directorate) is responsible for co-ordinating the implementation of the action plans and the Council's recommendations.

In our *2013 Annual Report*, we noted that by 2013 we would have expected the government to have assessed whether the 2004 Domestic Violence Action Plan was meeting its objectives of preventing domestic violence and improving supports for abused women and their children. However, the progress reports that have been issued publicly by the Directorate have been mainly anecdotal and have not offered clear updates on the status of the implementation of individual commitments.

Meanwhile, Statistics Canada data on the prevalence of domestic violence before and after the release of the 2004 plan showed some change in Ontario. The percentage of women who reported experiencing spousal abuse decreased from 7% in 1999 to 6.3% in 2009.

Our more significant observations included the following:

- The Ministry did not have the information it needed to identify the unmet demand for services and, in turn, allocate resources to close the gap. For example, in 2011/12, emergency shelters reported that they turned away 15,000 women, or 56% of the women who sought their help. However, this figure overstated unmet demand because the Ministry did not track how many of these women were referred to another agency and received services there.
- Ministry funding to transfer-payment agencies was generally based on what an agency received in previous years, with little or no correlation to identified needs or past performance. As a result, we found significant variations in unit costs among agencies providing similar services. In 2011/12, Ministry-approved annual funding for 10-bed emergency shelters ranged from $334,000 to $624,000, and the agencies' per-day cost of care ranged from $90 to $575.
- The Ministry's client satisfaction survey provided limited value because of its low response rate. In addition, no surveys were completed for 20% of agencies and fewer than 10 surveys were completed for another 40%.
- In 2009, an assessment of the condition of shelter buildings identified more than 500 safety and security issues that needed attention. As of March 31, 2012, the Ministry had provided funding for only 10% of those deficiencies and it did not know whether the funded projects had been completed or whether the agencies themselves had paid to fix any of the other problems.
- Despite the recommendations made in our 1994 and 2001 audits of VAW programs and services, the Ministry still has not developed any standards, service directives or guidelines for services provided under VAW funding, such as minimum staffing levels, admission criteria and exit criteria for emergency shelters.

We made a number of recommendations for improvement and received commitments from the Ministry that it would take action to address them.

Standing Committee on Public Accounts

The Standing Committee on Public Accounts (Committee) held a hearing on this audit in November 2014. In March 2015, the Committee tabled a report in the Legislature resulting from this hearing. The Committee endorsed our findings and recommendations, and also issued an additional nine recommendations. The Directorate and the Ministry reported back to the Committee at the end of July 2015. The Committee's recommendations and the status of the implementation of those recommendations are found in Chapter 7.

Status of Actions Taken on Recommendations

The Ontario Women's Directorate and the Ministry of Community and Social Services provided us with information in the spring and summer of 2014 on the current status of our recommendations. According to the information provided, two of our recommendations have been fully implemented and progress had been made on implementing many of our other recommendations. Little progress was made on about one-quarter of our recommendations. Some of these have to do with the ability to meet demand for services. Specifically, the ministry has no waitlist information for services, and does not know whether women referred elsewhere for services actually received those services. In addition, the Ministry has taken little action to ensure security deficiencies noted in 2009 in shelters which house women who are victims of violence, were actually corrected. According to the Ministry, since transfer-payment agencies are independently run organizations, they are responsible for maintaining their own sites. The Ministry has contracted to undertake building condition assessments over the next five years. Safety and security deficiencies will not be prioritized until all assessments are all completed.

The status of the actions taken on each recommendation is described in the following sections.

Provincial Initiatives

Recommendation 1

To assess whether the province's Domestic Violence Action Plan and Sexual Violence Action Plan have reduced domestic and sexual violence and improved supports for women who have experienced violence and their children, the Ontario Women's Directorate should ensure that the commitments contained within the action plans have measurable goals or targets attached to them and that progress is regularly assessed and reported.

Status: In the process of being implemented by early 2016/17.

Details

The Ontario Women's Directorate informed us that it does not plan to produce any further progress reports on the province's Domestic Violence Action Plan, which was released in 2004 and concluded in 2008.

The province's Sexual Violence Action Plan was a four-year plan that began in March 2011 and ended in March 2015. Upon completion of the plan, the Ontario Women's Directorate prepared a chart summarizing commitments made by various ministries, initiatives designed to meet those commitments and their related status and results. We noted that targets had been developed for many of the initiatives and progress was evaluated or would be evaluated by looking at both activity-based and outcome-based measures. For example, under the commitment to develop and deliver training and education programs for service providers and professionals in the community, progress was assessed based on the number of training sessions held and the number of organizations and persons that attended. Progress was also based on the percentage of participants who reported in a survey that, as a result of the training, they were better equipped to identify and support survivors of violence against women. In our view, it would also be helpful to survey the recipients of the services to determine their satisfaction with the services offered and the responsiveness of service providers to their needs. At the time of our follow-up, the latest status update, prepared in April 2015, was for internal purposes only. The Directorate informed us that it had not yet determined when it would post the latest results on their website.

In March 2015, the government launched a new Sexual Violence and Harassment Action Plan, called *It's Never Okay*. The plan indicates that progress will be monitored through various means, such as, incorporating performance metrics to measure outcomes of plan initiatives; conducting surveys and polls to measure people's experiences and changing attitudes relating to sexual violence and harassment; and determining cultural shifts through data analysis.

The Ontario Women's Directorate informed us that a benchmark attitudinal survey was done in March 2015 to establish existing attitudes at the start of the action plan. Future survey results will be used to measure changes in Ontarian's attitudes and experiences.

At the time of our follow-up, the Ontario Women's Directorate had convened a working group to develop and implement performance measures, goals and targets by early 2016/17 for initiatives under the new Sexual Violence and Harassment Action Plan. The working group is also expected to assess progress made on the initiatives under the action plan using the soon-to-be established indicators. The Action Plan states that Ontarians will get a progress update on the Plan's first year anniversary. The Directorate informed us that it has not yet determined the frequency of further public reporting.

Shelter/Housing and Counselling Services for Victims of Domestic Abuse

Recommendation 2

To help ensure that the services provided by transfer-payment agencies to abused women and their children are of an acceptable and reasonably consistent quality standard, the Ministry of Community and Social Services should:

- *establish acceptable quality standards for shelter services, particularly with regard to admissions, minimum staffing levels and periodic Canadian Police Information Centre checks for shelter staff; and*

Status: In the process of being implemented by mid-2016.

Details

Since our audit, the Ministry has developed a Shelter Standards Manual to provide guidance on the type of policies and procedures shelters need to have in place in six areas: access to shelter services, client rights and responsibilities, program standards, staff and volunteers, health and safety, and service monitoring and evaluation. The Ministry consulted with almost all funded shelters as well as industry experts and incorporated the feedback into the standards where it felt appropriate. The Ministry planned to fully implement the Shelter Standards Manual by mid-2016, and indicated that the 2016/17 service contracts with shelters would outline the requirement to comply with the guidelines.

The Ministry maintains its view that shelters need to be able to carry out their day-to-day operations with flexibility and reasonable autonomy in accordance with regional and demographic demands, while being accountable to their boards of directors and/or chiefs and council and the Ministry. In this regard, the Ministry has not set specific minimum standards, but rather provides guidelines.

For example, included in the access to shelter services standards it is stated that:

- The shelter will have a written procedure that outlines the various reasons for women and dependents transitioning from the shelter.
- When transitioning from the shelter, shelter staff will notify women and dependents that if they need support, they can contact the shelter for additional information and referrals to resources and community services.
- Shelters will have a written policy that outlines the reason women and dependents may be transferred to another shelter.

The Ministry told us that they needed to perform further analysis on staffing, wages and employee-to-bed ratios before they could make a determination of the level of service that agencies should provide in these areas.

Since our audit, the Ministry has also developed requirements for all Ministry-funded VAW agencies to require a CPIC (police record check for the vulnerable sector) for anyone who comes into unsupervised contact with women and/or their children while performing their duties at the agency, prior to providing services and every three years thereafter. The Ministry expects agencies to be in compliance with this policy by April 2016.

- *regularly monitor agencies' performance against standards and take appropriate corrective action if necessary.*

  Status: In the process of being implemented by mid-2016.

Details

The Ministry recognized the need to strengthen its monitoring of agencies' performance against standards and take appropriate action. In this regard, in March 2015 the Ministry hired three senior program advisors to enhance monitoring efforts in the area of performance management, performance monitoring, data analysis, and development of a program evaluation framework. The Ministry stated that preliminary work on the development of a monitoring tool has begun which will consist of questions to help identify levels of risk related to the standards, drawing from existing mechanisms such as risk assessments and serious occurrence reporting. The Ministry expects to fully implement this recommendation by mid 2016.

Monitoring Service Delivery and Expenditures

Recommendation 3

To better ensure that the quarterly reporting process for transfer-payment agencies providing services to abused women and their children furnishes sufficient information to enable cost-effective monitoring of expenditures and service delivery, the Ministry of Community and Social Services should:

- *require transfer-payment agencies to submit only data that is useful for analyzing service costs and gaps in services; and*

  Status: In the process of being implemented in fiscal 2016/2017.

Details

Agencies funded by the Ministry are required, under their contracts, to submit quarterly reports that compare actual expenditures and service-level data against targeted amounts, and to provide explanations for significant variances.

The Ministry produced revised reporting standards in 2012/13 which included whether individuals were not served because the agency was at capacity, were referred elsewhere for more appropriate services or were waitlisted. Based on an analysis of the 2012/13 and 2013/14 data, the Ministry noted inconsistencies in how data was being reported by agencies. Since this time, the Ministry has further revised the data to be submitted from transfer-payment agencies. For example, in 2013/14 the reporting of the number of individuals served under the Transitional and Housing Support Program was changed so that dependents are no longer counted. This better reflects the households/families served. The Ministry informed us that it is also considering how to revise the calculations of occupancy rates at shelters, and how to capture information needed to determine whether women referred elsewhere received services. The Ministry expects any further changes to be incorporated into their reporting standards for 2016/17.

- *develop procedures, such as periodic spot checks of submitted data, to ensure that data reported by transfer-payment agencies is accurate, consistent and reasonable.*

Status: In the process of being implemented by March 2016.

Details

In November 2014, the Ministry approved implementation of a Data Integrity Framework for its information system which collects financial, service, and staffing-related data for the transfer-payment agencies. The Framework includes the introduction of common tools for the regional offices to verify data anomalies. It contains a report which identifies missing data and significant variances against targets, and a summary report to provide a quick view at the regional program level to identify any problems with data quality. The staff then have the ability to drill down to the agency level to isolate the problem. The framework also establishes a quarterly regional data attestation requirement and provides training for regional staff on data entry, updates and the use of tools.

At the time of our follow-up, two regional offices had received training on the use of the Data Integrity Framework, and the Ministry indicated that it planned to complete training for the remaining regional offices by the end of November 2015.

The Ministry also informed us that it undertook a pilot in March and April 2014 to spot check data submitted by transfer-payment agencies (of which only one was a VAW agency). Staff in the North Region who conducted the pilot are expected to share the pilot's findings and best practices with other Ministry staff. The Ministry informed us that it intends to apply the findings from the pilot to the development of a province-wide reporting approach. The Ministry informed us that this recommendation will be fully implemented by March 2016.

Monitoring Quality of Services Provided

Recommendation 4

To ensure that the services being provided to abused women and their children are meeting their needs and are delivered in a safe and secure environment, the Ministry of Community and Social Services should:

- *consider ways to increase the response rate on the client satisfaction survey, and analyze results by the nature of the service being provided;*

  Status: Fully Implemented.

Details

The voluntary client satisfaction survey aims to assess whether the programs have increased women's safety, well-being and sense of empowerment, and improved the accessibility and responsiveness of VAW services. At the time of our audit, we reported that the response rate of the client survey was as low as 4% and respondents did not answer every question on the survey.

To address this, the Ministry analyzed the response rate of all questions contained in the previous survey and eliminated or revised those questions that had a low response rate. The Ministry also requested agencies to rate the importance of each question in the previous survey and eliminated those questions that were rated low in importance. Finally, the Ministry consulted with stakeholders to gather input on the content of the revised survey to ensure the questions were relevant and easily understood.

To try to increase the overall response rate of the survey, the Ministry encouraged agencies to develop an incentive program for women who complete the survey. The Ministry directed agencies to use the $2,100, provided to them annually for administering the survey, to fund incentives. Agencies will be required to report back to the Ministry on any incentive programs they have implemented.

The revised survey was shortened to 19 from 39 questions and now allows women to indicate what services they received from the agency, giving them an opportunity to rate their level of satisfaction with each service. Overall, the redesigned survey focuses more on client outcomes, satisfaction with individual services and wait times for services received. The Ministry has also told us it provides each agency with 'real-time' access to the survey results for their agency with the expectation that agencies will be using the data to analyze the responses to determine how to improve upon their services.

According to the 2014/15 provincial summary of survey results, almost 5,900 surveys were completed compared to 3,200 in 2011/12.

- *require agencies to periodically submit their program evaluations for ministry review, and subsequently ensure that areas requiring attention are corrected and best practices are shared with other service providers; and*

  Status: Little or no progress.

Details

At the time of our follow-up, the Ministry informed us that it had requested all VAW agencies to submit any program-related evaluations conducted (analysis, reports, presentations, exit interview summaries, formal program evaluations, evidence of board review of results, etc.). The Ministry stated that it expects its regional offices to review the evaluations by the end of June 2016.

- *implement a plan for correcting significant safety and security deficiencies identified in the Ministry's 2009 Building Condition Assessment.*

  Status: Little or no progress.

Details

According to the Ministry, since transfer-payment agencies are independently run organizations, they are responsible for maintaining their own sites. The Ministry has signed a contract with a vendor to complete Building Condition Assessments of all transfer-payment agency sites over the next five years, including VAW sites. Agencies can use this information to support their request for capital funding from the government. Once assessments are completed in 2020, the Ministry, in consultation with the sector, expects to analyze Building Condition Assessment data along with program information, to prioritize physical safety, fire code and security work, as part of broader VAW program needs.

Meeting Demand for Services

Recommendation 5

To better ensure that the service needs of abused women and their children are met, the Ministry of Community and Social Services should:

- *require agencies to maintain wait-list information for their services; and*

  Status: Little or no progress.

Details

In our 2013 audit we reported that the Ministry lacked the information needed to identify the unmet demand for services and, in turn, allocate the appropriate resources to close the service gap.

Although the Ministry revised its reporting standards for transfer-payment agencies since our 2013 audit, and now requires agencies to report the number of women placed on a waitlist during the reporting period, it does not ask for waitlist information at a particular point in time. Therefore, demand is unknown.

- *review the feasibility of implementing a system to determine whether women who are eligible for VAW services but must be referred elsewhere by an agency, because of capacity issues, actually receive the needed services.*

  Status: Little or no progress.

Details

In October 2014, the Ministry analyzed whether the data it was collecting from agencies was adequate to help it assess whether the demand for VAW services was being met. The Ministry's analysis found that there were several limitations with the available data. Specifically, the data did not provide the Ministry with a unique count of women waiting for service or the length of time a woman was waiting for service. As well, the data collected did not provide insight into whether women referred elsewhere actually received services.

At the time of our follow-up, the Ministry informed us that it was assessing the feasibility of a pilot project to collect information about whether women referred elsewhere received services without contacting the women directly. The Ministry indicated that it was assessing ways to collect high quality data without jeopardizing the safety and security of women seeking services. The Ministry also informed us that if its assessment indicates the pilot project is feasible, it expects to implement a data collection plan early in the 2017/18 fiscal year.

Funding

Recommendation 6

To ensure that funding provided to transfer-payment agencies is commensurate with the value of services provided to abused women and their children and is properly allocated to meet the demand for these services across the province, the Ministry of Community and Social Services should periodically compare and analyze agency costs for similar services across the province, investigate significant variances that seem unjustified, and ensure that funding is based on the trend in actual service levels provided.

Status: In the process of being implemented by March 2016.

Details

At the time of our audit, we found that, although transfer-payment agencies were required to submit an annual budget to secure funding for the following year, the funding allocation was generally historically based with little or no correlation to identified needs or past performance. At that time, the Ministry had not done an analysis to determine whether resources were properly allocated across the province to meet the demand for VAW services.

In January 2015, the Ministry completed an analysis of 2012/13 and 2013/14 year-end service and financial data reported by the agencies. The analysis examined regional and agency differences in unit costs for four key ministry-funded VAW programs (i.e., Emergency Shelter Services, Counselling Services, Child Witness Program, and Transitional and Housing Support Program). Similar to our audit findings in 2013, the analysis completed by the Ministry found there was a great deal of variability in unit costs (e.g. cost per individual, per bed, per hour of service, depending on the service) for all four VAW programs.

The Ministry is also in the process of finalizing the development of a business intelligence dashboard that will allow for data analysis and comparisons across agencies, programs, and regions. The dashboard will consolidate financial and service program data by various levels (agencies/program/region) and provide the ability to perform comparisons (for example, against a provincial 'average', year-over-year or similar regions/entities). The Ministry feels this will enable the users to more easily identify trends and monitor key program metrics (expenditures, service targets) which it expects will lead to improved monitoring and reporting. The Ministry has told us it has yet to resolve some technical issues and improve user experience, but once completed the dashboard will be made available for use by regional and corporate staff.

The analysis being completed and the implementation of the dashboard as a tool to examine trends and compare results across agencies, programs and regions is an effective first step in addressing the recommendation. However, the Ministry has informed us that no processes to address issues identified in service levels and related funding have been developed. Its expectation is to complete this in early 2016.

Co-ordination

Recommendation 7

To help improve the co-ordination of service delivery for abused women and their children, the Ministry of Community and Social Services (Ministry) should:

- *ensure that regional offices undertake effective strategic service planning with agencies and that the results support the Ministry's overall goals and priorities; and*

  Status: In the process of being implemented by April 2016.

Details

The Ministry requires its five regional offices to conduct strategic service planning and coordinate regional service delivery. This involves bringing Ministry-funded VAW agencies together to discuss service issues, best practices, emerging issues and regional priorities. However, our 2013 audit found that the degree of strategic planning taking place varied at all three regional offices examined.

At the time of our follow-up, the Ministry had drafted a VAW Strategic Plan in which regional coordination was identified as a key pillar. However, the plan did not yet include specifics of proposed actions or outcomes for coordination. The Ministry shared the strategic plan with regional offices and VAW agencies in fall 2015 and is currently reviewing the feedback received to incorporate it into guidelines for regional offices.

The Ministry undertook a scan of the current state of planning conducted in its various regions to enable it to develop regional office guidelines for engagement, involvement, and feedback; determine how regional offices will deal with VAW agencies in a consistent manner; and ensure that regional offices' local planning are consistent with Ministry priorities. The Ministry informed us that the results of the scan revealed that while each region has developed distinct VAW service planning processes, commonalities were present, including: removing barriers to service delivery; building collaboration between VAW service providers and; sharing best practices to address challenges and ensure consistency in the implementation of service changes and initiatives. The Ministry has organized a working group on regional service system planning to assist with the development of guidelines and the integration of service planning into all 2016/17 VAW agency contracts.

The Ministry expected to hold consultations beginning in mid-2015 to seek input on improvements to regional planning and develop guidelines by the end of the year for implementation in early 2016.

- *use the annual reports of the Domestic Violence Community Coordinating Committees, and the committees set up to manage the collaboration agreements between Children's Aid Societies and VAW agencies, as well as the Transitional and Housing Support Program referral agreements to:*
  - *summarize the useful information;*
  - *share the opportunities for service improvements and useful research identified; and*
  - *take corrective action on common issues identified.*

  Status: In the process of being implemented by March 2016.

Details

In our 2013 audit we found that the Ministry was not analyzing information submitted by the various committees that were set up to co-ordinate service activity in order to identify best practices and inform program decision making. These included:

- Domestic Violence Community Coordinating Committees aimed at strengthening linkages and networks among community agencies for the purposes of improving community response to abused women, increase awareness and prevention, and identify and address gaps in VAW services;
- Committees set up to manage collaboration agreements between VAW service providers and Children's Aid Societies (CAS) to provide local protocols between CAS and VAW agencies (both shelters and counselling agencies) to identify the situations when the two sectors must involve each other and what actions should be taken by each; and

- Committees set up to manage referral agreements between the Transitional and Housing Support Program service providers and social housing service providers. All Transitional and Housing Support Program providers are expected to have agreements with local Social Housing Co-ordinated Access Centres to help abused women find social housing.

At the time of our audit, the Ministry had completed a summary report of Domestic Violence Community Coordinating Committees' annual reports which was distributed to regional directors and to the committees for their information. The Ministry informed us that it also completed a provincial summary based on 2014/15 annual reports and plans to distribute it among regional offices and the committees to facilitate the sharing of best practices across the committees.

The Ministry also updated the year-end reporting template to be completed by the CAS/VAW collaboration agreement committees to include a report back on outcomes which had not previously been requested. It then completed a summary report based on the 2012/13 CAS/VAW reports which lists a number of initiatives introduced as a result of information reported by the committees. For example, further outreach to the aboriginal community around the issue of native children and child welfare. The summary report for the 2013/14 year is expected to be released by the end of 2015. The Ministry has also announced it provided one-time total funding of $200,000 in 2014/15 to CAS/VAW collaboration committees to address identified training needs.

In regard to Transitional and Housing Support Program annual reports, the Ministry informed us that it planned to roll up information from all the annual reports submitted to regional offices for fiscal 2012/13, 2013/14 and 2014/15. The information would then be distributed to regional staff and collaboration committees by the end of fiscal 2015/16. At that point the Ministry informed us it would also assess the need for continued reporting or recommendations for improvements.

Performance Reporting and Overall Effectiveness

Recommendation 8

To assess how effective the Ministry of Community and Social Services (Ministry) has been in achieving its objectives for Violence Against Women programs and services, the Ministry should:

- *establish performance measures for its objective of enhancing the co-ordination of services, as well as targets for all established performance measures, and regularly report results related to those measures; and*

  Status: In the process of being implemented by April 2016.

Details

At the time of our audit, although the Ministry had performance measures in place (with the exception of measures on the co-ordination of VAW services), it had not established targets or benchmarks or routinely reported results related to them.

To begin to address the concerns the audit raised, the Ministry has updated its program goals to include "to improve the coordination of services at the community level" and added the corresponding outcome that, "women receive services that are accessible and responsive to their needs."

The Ministry intends to use the 2014/15 results from the revised VAW satisfaction survey and input from regional consultations with partner agencies to facilitate the development of VAW outcomes and a performance measurement framework, including targets, by early 2016.

The Ministry also informed us that although it currently releases a provincial summary report of its client satisfaction survey, which includes results related to three of its performance measures, it plans to implement a regular reporting cycle for all performance measures, beginning in fiscal 2016/17.

- *liaise with Statistics Canada to obtain responses to the biennial Transition Home Survey, by province, and compare pertinent results for*

Ontario to past performance and to results in other jurisdictions.
Status: Fully implemented.

Details

At the time of our audit, we noted that every other year for approximately 20 years Statistics Canada had been surveying all residential facilities that provide services to abused women and their children across Canada and collecting information both on the services provided and on the clientele. In our view, a number of the survey questions and answers would provide useful information to the Ministry.

The Ministry has fully implemented our recommendation to obtain and use responses to Statistics Canada's biennial Transition Home Survey. Specifically, the Ministry has obtained provincial-level data from the Statistics Canada survey dating back to 2005/06. The Ministry informed us that they had reviewed the data and completed an analysis that compares results for Ontario to past performance and to results in other jurisdictions, but had not yet prepared a report of its findings. The Ministry expects the survey will aid in providing examples of other data that can be collected from service providers to inform the development of performance measures and to support program and policy decision making, particularly as it relates to performance measurement.

Further to this, the Ministry completed a review of various reports, including academic articles, data, and reports available through Statistics Canada to enhance its understanding of violence against women and to understand the prevalence, characteristics, and risk factors associated with this violence. The majority of the information gathered for the literature review focused on Canadian jurisdictions.

Chapter 5

Toward Better Accountability

Each year, our Annual Report addresses issues of accountability—and initiatives to help improve accountability—in government and across the broader public sector. This year, in addition to issues of accountability raised in our value-for-money audits, we have examined the timeliness of provincial agencies in publicly reporting on their activities through their annual reports. Thorough and accurate disclosure of such information is essential to accountability, and is a mandated requirement for provincial entities. As this chapter highlights, there is considerable room for improvement by some provincial agencies and their responsible ministries in meeting the required timelines for reporting.

1.0 Main Points

A provincial agency's annual report, including its audited financial statements, provides details about the agency's activities, and is meant to give the responsible minister, all members of the Legislature and the public a comprehensive view of the agency's operational and financial performance. The annual reporting requirements and timelines are typically governed by the statute that created the agency, a Memorandum of Understanding (MOU) between the agency and its responsible minister, and/or a directive of Management Board of Cabinet. (An MOU is an administrative agreement that provides a formal record of the relationship between the agency and the responsible minister. It clarifies expectations and policies set out in the statute that established the agency.) Most provincial agencies are required to produce annual reports and submit them to their responsible minister within a specified time period. Ministers are then to review these reports and make them public, either by "tabling" them (officially presenting them) in the Legislature or by approving them for posting on an agency or government website. Although the intent of these requirements is to promote agency transparency and accountability, we have found that some aspects of a new directive issued by Management Board of Cabinet in February 2017 instead conflict with this intent. We also noted:

- Fewer than a quarter of agencies sampled had specific timeframes legislated for submitting and/or tabling their annual reports. Despite the legislated requirement for their 2016 annual reports, these timeframes were often not met. Similarly, required timeframes set out in MOUs (for agencies without legislated timeframes) were often not met. Further, over the past three years, only a small portion of provincial agencies' annual reports were tabled in the Legislature in accordance with the timelines specified in the Management Board directive in effect at the time. We reviewed the timeliness of such reporting for a sample of 57 agencies over the past three years and found that only 5% were tabled within six months after the agencies' fiscal year end, while 68% were tabled more than 12 months after year end and 9% had not been tabled at all. Our work further showed that the major delays were often not in the agencies themselves, but rather in the ministers' offices.

- Timelines required for submitting and tabling annual reports are not consistent. This is because the annual reporting requirements for some agencies, but not all, are specified in the legislation, regulation or Order in Council that established them, or in an MOU between the agency and its responsible minister. Legislative requirements take precedence over the Management Board of Cabinet directive that governs agencies without such requirements. As a result, agencies with responsibilities in the same areas may report on different timetables, and reporting timelines for an agency and its responsible minister may be found in different places. These complications further contribute to inconsistencies in the release of reports, and to decreased access to the reports by the members of the Legislature and the public.
- Ontario has recently moved away from tabling reports as a means to hold agencies accountable. Under the new directive that came into effect in February 2015 (directives are not publicly posted), the requirement was eliminated for ministers to table in the Legislature the annual reports of provincial agencies. However, 103 provincial agencies are still required by statute to table their annual reports in the Legislature. Some would argue that tabling is not necessary because the Legislature's Standing Committee on Government Agencies is empowered to review the operations of all provincial agencies, regardless of whether their annual reports have been tabled. The view of the Management Board of Cabinet is that posting annual reports on websites is preferable to tabling them in the Legislature because posting on a public website invites the public to engage in the political process. Posting on public websites is seen as part of the government's Open Government initiative announced by the Premier in October 2013. However, we believe that some measure of accountability may be lost if our elected officials are not also formally notified when reports become publicly available that document the operations and expenditures of agencies that are responsible for billions of dollars of public funds. If reports are not tabled, another way is needed to notify elected officials of their public release. In this way, the democratic role of the Legislature is upheld and public access to vital information is enhanced.
- An annual report could sit in a minister's office for months or even years without the minister being in contravention of the new February 2015 directive. The new directive changes the requirements specifying what provincial agencies are required to report on, and the timelines for the submission and release of reports. The stated intention for replacing the previous directive, which dates back to 2010, with the new one was to increase accountability and openness, and to expedite public reporting. However, one change actually achieves the opposite. Whereas the previous directive required the relevant minister to table an agency's annual report in the Legislature or with the Clerk's Office within 60 days of receiving it (unless the agency's establishing legislation specified otherwise), the new directive specifies no deadline for the minister to release the report either through tabling or posting on a website.
- Our survey of other Canadian jurisdictions indicates that five have statutes mandating a consistent process for submitting and/or tabling agency annual reports. Minimizing ambiguity in reporting requirements across government agencies could lessen confusion and serve to increase transparency and oversight.

OVERALL RESPONSE FROM TREASURY BOARD SECRETARIAT

Ontario has recently enhanced the governance, accountability and transparency of its provincial agencies. The Agencies and Appointments Directive has introduced several new accountability and transparency requirements including: the public posting of key governance documents (*i.e.*, business plans, memoranda of understanding, and annual reports); regular mandate reviews for all agencies; quarterly risk reporting to Treasury Board and Management Board of Cabinet; and annual agency CEO/Chair declarations of compliance with applicable legislation, regulation, directives and policies. The input and recommendations of the Auditor General will assist in further enhancing the governance and accountability of Ontario's provincial agencies.

2.0 Background Information

2.1 What Are Provincial Agencies?

Governments in Canada establish agencies to undertake a variety of activities in the public interest. Although the work of these agencies is related to the responsibilities of provincial or federal ministries, they are intended to provide goods and services to the public and to operate to varying degrees at arm's length from the government. The government of Ontario establishes provincial agencies through an act, a regulation of an act or an Order in Council, which is an order that the government issues, for example, to bring a law into force or set up a commission. Some of Ontario's provincial agencies are engaged in commercial ventures, such as the Liquor Control Board of Ontario selling alcohol. Some perform a regulatory role, such as the Ontario Energy Board and the Ontario Securities Commission. (See **Appendix 1** for the types and number of agencies under the Agency Establishment and Accountability Directive in effect until January 2015. See **Appendix 2** for the types and number of agencies under the new Agency and Appointments Directive in effect from February 2015.)

2.2 How Are Provincial Agencies Governed?

The government of Ontario grants provincial agencies the authority and responsibility to perform their public functions or services and makes the majority of appointments to the agencies' governing boards. The agencies' governance structures are defined by Management Board of Cabinet directives issued under the Management Board of Cabinet Act and consist of three key parties:

- the responsible minister;
- the governing board; and
- the agency's management.

Although agencies are not part of a ministry, they are accountable to the responsible minister for fulfilling their legislative obligations, managing the resources they use and maintaining the appropriate standards for any services they provide.

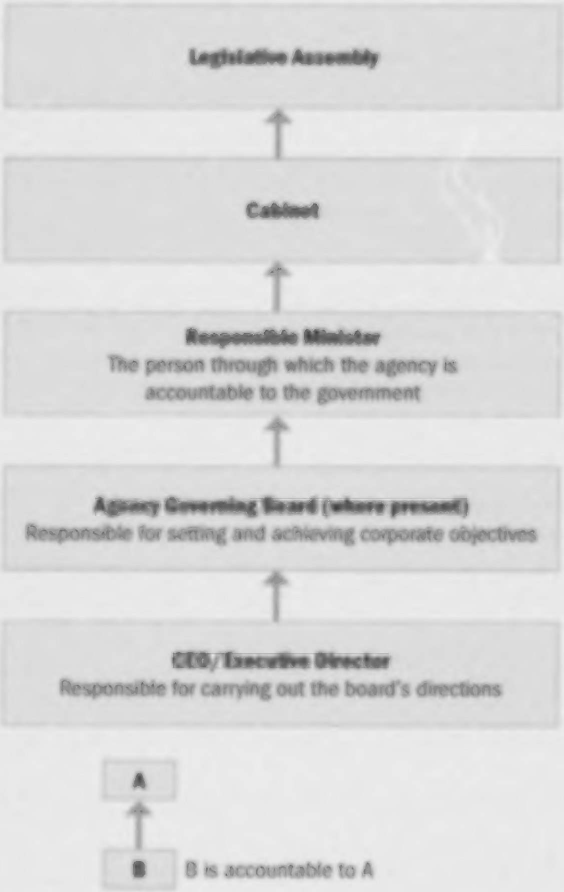
Where present, the governing board is responsible for setting and achieving an agency's objectives. The board is immediately accountable to the responsible minister for the agency's performance. Agency management is responsible for carrying out the board's direction. **Figure 1** illustrates this relationship. Government appointments to provincial agencies (i.e., board of directors, adjudicative tribunals) are made for either a fixed term or at the pleasure of the responsible minister and/or Lieutenant Governor in Council. Some of the appointees are government employees, such as deputy ministers, while others come from outside of government.

2.3 Are Provincial Agencies Accountable to the Public?

To ensure that the citizens of Ontario are well served by provincial agencies, good governance and

Figure 1: Agency Accountability and Governance Structure

Source of data: Adapted from the Agencies and Appointments Directive


Legislative Assembly
Cabinet
Responsible Minister
The person through which the agency is accountable to the government
Agency Governing Board (where present)
Responsible for setting and achieving corporate objectives
CEO/Executive Director
Responsible for carrying out the board's directions
A
B
B is accountable to A

accountability practices are essential. Therefore, these agencies are ultimately answerable to the Legislature and the public to ensure that they are operating effectively, fulfilling their mandates and meeting their objectives. They are also accountable for how public funds are spent.

Ready access to information about agencies' operations and finances, including annual reports, is considered vital to open and transparent government. In October 2013, the Premier announced the launch of the Open Government initiative, focusing on finding ways for the government to be more open in its activities, including putting government data online. Although the initiative does not specifically refer to provincial agencies, enhancing public accessibility to agency annual reports would be in line with the intent of Open Government.

2.4 Why Do Provincial Agencies Provide Annual Reports to the Government?

Each year, provincial agencies spend public funds allocated to them by the government to undertake activities in the public interest. An agency's annual report details its activities and expenditures to inform the government and the public whether it has achieved its goals and how it has spent its money. Other provincial entities such as the Ontario Lottery and Gaming Corporation and the Liquor Control Board of Ontario generate their own funds. In some cases, the legislation, regulation or Order-in-Council that established the agency specifies that the agency must produce an annual report; in other cases, it is the Management Board of Cabinet that formally requires provincial agencies to prepare these annual reports. Management Board oversees the governance of provincial agencies primarily by issuing directives—the Agency Establishment and Accountability Directive in effect until January 2015 and the Agencies and Appointments Directive effective from February 2015 on. Management Board is also responsible for ensuring agencies' openness and accountability under Ontario's Open Government initiative.

2.5 When Are Provincial Agencies Required to Submit Their Reports?

For some agencies, the legislation, regulation or Order-in-Council that established the agency directs the agency to complete its annual report and submit it to the responsible minister within a set number of days after the end of the agency's fiscal year. In some cases, if the statute establishing the agency has not specified when the annual report is to be submitted, a Memorandum of Understanding

(MOU) between the agency and its responsible minister does so. Some of the statutes that established an agency or MOUs between the agency and the responsible minister further stipulate that the minister table the annual report in the Legislature within a set time period.

Given that legislation stipulates reporting requirements for only a limited number of agencies, and in some cases does not prescribe timelines, Management Board of Cabinet issued directives that applied to all agencies without legislated requirements. Until February 2015, the Agency Establishment and Accountability Directive specified annual reporting requirements for these agencies. In February 2015, a new directive called the Agencies and Appointments Directive was approved by Management Board of Cabinet and took effect immediately. It replaced the previous directive and its annual reporting requirements.

2.6 What Are Provincial Agencies Required to Report?

2.6.1 Prior to February 2015—Agency Establishment and Accountability Directive

Agencies (except advisory agencies and agencies with differing legislated requirements) were required to submit an annual report to the responsible minister within 120 days of the end of their fiscal year, or within 90 days if the agency did not have a governing board. Annual reports were required to include the agency's financial statements, with actual results, variances, and explanations of the variances against estimates.

2.6.2. Since February 2015—Agencies and Appointments Directive

The Agencies and Appointments Directive that came into effect in February 2015 stipulates what must be included in the agencies' annual reports. **Figure 2** illustrates the differences between the two directives, and shows that the new directive includes reporting requirements beyond those contained in the previous one. For example, in addition to the financial reporting required by the old directive above, annual reports under the new directive must also contain a description of activities over the year, an analysis of operational and financial performance, and a discussion of performance targets achieved and of action to be taken when targets are not met.

The previous directive required only the agency's financial statements (with actual results, variances against estimated expenditures and explanations of the variances). The new directive also requires a description of activities over the year. Board-governed agencies must further include an analysis of operational and financial performance; discussion of performance targets achieved and of action to be taken when these targets are not achieved; and names of appointees to the board and the start and end dates of their terms. However, the new directive no longer requires a minister to table a report in the Legislature within 60 days of receiving it when the Legislature is in session, or file a report with the Clerk within 60 days of receiving it when the Legislature is not sitting.

2.7 Role of the Legislature's Standing Committee on Government Agencies

The Legislature's Standing Committee on Government Agencies is empowered to review intended appointments to the boards of directors and other key roles of provincial agencies, and to review the operations of all agencies and report its findings and recommendations to the Legislature as a whole.

3.0 What We Looked At

Our objective was to assess whether the provincial agencies we sampled were complying with the reporting timelines as required by Management Board's Agency Establishment and Accountability

Figure 2: Comparison of Agency Establishment and Accountability Directive with Agencies and Appointments Directive

Source of data: Ministry of Government Services, Public Appointments Secretariat

▨ Requirements under the Agency Establishment and Accountability Directive carried over into the Agencies and Appointments Directive

Agency Establishment and Accountability Directive (Effective until January 2015)	Agencies and Appointments Directive (Effective as of February 2015)
Agency Classifications	
There were seven different agency classifications. There was a total of 197 agencies within these classifications as of March 2014. See Appendix 1 for details.	There are three different agency classifications. There was a total of 184 agencies within these classifications as of June 2015 (13 agencies existing in March 2014 were merged or dissolved). See Appendix 2 for details.
Annual Reporting Requirements	
Every agency except advisory agencies must submit an annual report to the responsible minister within 120 days after its fiscal year-end. An agency that does not have a governing board must submit its report to the minister within 90 days after its fiscal year-end.	Every agency except advisory agencies must submit an annual report to the responsible minister within 120 days after its fiscal year-end. An agency that does not have a governing board must submit its report to the minister within 90 days after its fiscal year-end.
The ministry must table an agency's annual report in the Legislature within 60 days of receiving it. When the Legislative Assembly is not sitting, the minister must file the report with the Clerk's Office within 60 days of receipt.	The annual report must be posted on a provincial agency or government website within 30 days of being tabled in the Legislature (if required by statute) or when approved by the minister (if tabling is not required). Agencies without governing boards and adjudicative tribunals must also post the annual report on a ministry or provincial agency website within 30 days of minister's approval.
The annual report must include: • the agency's financial statements, with actual results, variances and explanations of the variances against estimate.	The annual report must include: • a description of activities over the year; • audited financial statements (or, where an audit is not practical, financial statements subject to another appropriate level of external assurance), with actual results, variances and explanations of the variances against estimate. The annual report of a board-governed provincial agency must include in addition: • an analysis of operational and financial performance; • discussion of performance targets achieved and of action to be taken when targets not achieved; and • the names of appointees, including their appointment dates and the expiry date of their terms. The annual report of a non-board-governed provincial agency without a governing board must include: • a report on the tribunal's activities, including recruitment activities, during the preceding fiscal year; • a financial statement for the tribunal for the preceding fiscal year; and • any content required by legislation.
Other Accountability Measures	
Ministers and Deputy Ministers must sign and submit an annual attestation to the Secretary, Management Board of Cabinet, indicating that provincial agencies have complied with all requirements of this directive and any others that may apply. This includes having a current Memorandum of Understanding, an annual report, a business plan and a risk-assessment evaluation.	Deputy Ministers must sign and submit an annual attestation to Treasury Board Secretariat indicating that provincial agencies have complied with all requirements of this directive and any others that may apply. This includes having a current Memorandum of Understanding, an annual report, a business plan and a risk-assessment evaluation. If agencies have failed to comply with directives and policies, the attestation must state this explicitly and explain the failures to comply. CEOs of board-governed agencies must attest to their chairs that the agency has complied with all requirements. Chairs of board-governed provincial agencies must send a letter to the responsible minister confirming their agency's compliance with legislation, directives, and accounting and financial policies. Provincial agencies must post their Memorandum of Understanding and an annual business plan for the next three years within 30 days of the minister's having approved them.

Directive. (The new February 2015 directive has more requirements, but compliance with it could not yet be reviewed at the time of our audit.) We reviewed the timeliness of reporting by 57 of the largest and more significant agencies over the past three years. (These agencies are listed in **Appendix 3**.) All 57 agencies we selected responded to our survey. We also reviewed the requirements set forth in the new directive to see whether it is likely to increase the timeliness of annual reports being made publicly available over the earlier directive.

In July 2015, the Ontario Internal Audit Division began a review of agency governance and oversight, focusing on business plans and annual reports, which it expected to have completed by early 2016. Our office supports this review.

4.0 Key Observations and Recommendations

4.1 Significant Delays in the Public Release of Annual Reports

We surveyed a sample of 57 provincial agencies to assess the period of time after their fiscal year-end that their annual report was:

- submitted to their responsible minister; and
- tabled in the Legislature.

The sampled agencies were those that are included in the province's financial statements (Public Accounts), to which the Directive applies. Agencies were specifically asked about the status of the previous three years of annual reports, and to provide evidence as to when the reports were forwarded to the appropriate ministry for tabling in the Legislature.

As illustrated in **Figure 3**, over the three-year period 2012–14, on average only 5% of annual reports were tabled within six months of the sampled agencies' fiscal year-end. On average, 68% of the annual reports were tabled more than 12 months after the agencies' fiscal year-end, and 6% had not been tabled at all. As of September 2015, 9% of 2014 annual reports had not yet been tabled. Late tabling reduces the ability of the members of the Legislature to review and question the agencies' operations. Likewise, it is more challenging for the Legislature to play a constructive role in the public discussion on the direction and governance of agencies if annual reports are tabled late or not at all.

Our review also assessed whether the delays were caused by agencies failing to submit annual reports to the ministries on time, or by the ministries failing to table annual reports on time. As illustrated in **Figure 4**, the sampled agencies submitted annual reports to the ministries within 120 days (four months) of their fiscal year-end in only 58% of the cases on average over the past three

Figure 3: Timing of the Tablings of the Annual Reports of a Sample of 57 Agencies, 2012–2014

Prepared by the Office of the Auditor General of Ontario

Annual Reports Tabled	2012		2013		2014		Total 2012–2014	
(time after agency fiscal year-end)	#	%	#	%	#	%	#	%
< 6* months	4	7.0	3	5.3	2	3.5	**9**	5.3
7-8 months	2	3.5	3	5.3	5	8.8	**10**	5.8
9-10 months	4	7.0	15	26.3	1	1.8	**20**	11.7
11-12 months	2	3.5	–	0.0	3	5.3	**5**	2.9
More than 12 months	43	75.4	32	56.1	41	71.8	**116**	67.9
Not tabled	2	3.5	4	7.0	5	8.8	**11**	6.4
Total	**57**	**100.0**	**57**	**100.0**	**57**	**100.0**	**171**	**100.0**

Note: Data is current as of September 2015.

* As required by the Agency Establishment and Accountability Directive. See Figure 2 for reporting requirements, including timing of reports.

years. As **Figure 3** shows, only 5% of the reports were tabled within six months after the agencies' fiscal year-end. This indicates that delays within the ministries, versus delays by the agencies, mainly contributed to the delays in the tabling of the annual reports.

RECOMMENDATION 1

To ensure agencies effectively demonstrate their accountability to their responsible minister, the Legislature and the public, Treasury Board Secretariat in conjunction with the ministries should ensure that all agencies submit their annual reports within legislated timeframes or the directed 90 or 120 days. In addition, ministries should co-ordinate with their ministers to ensure the minister tables and/or otherwise makes public the annual reports in a timelier manner than in the past.

SECRETARIAT RESPONSE

A new requirement for board-governed agencies requires the Chief Executive Officers and Chairs of Boards of Directors to attest that their agencies are complying with applicable legislation, regulation, directives and policies. To support the implementation of this new requirement and ensure compliance, Treasury Board Secretariat is developing comprehensive guidance material regarding the attestation process for provincial agencies and ministries. Compliance declarations will be part of the annual Ontario Public Service Certificate of Assurance process to support compliance and accountability beginning this year.

In addition, the Government's Agencies and Appointments Directive has introduced new requirements to publicly post all governance documents (that is, business plans, Memoranda of Understanding, and annual reports) within 30 days of ministerial approval. This is expected to greatly increase the transparency and accountability of agencies, and reduce the total time taken to publicly release annual reports. Ministries will be encouraged to work with their Ministers to table and/or publicly post annual reports in a more timely manner.

Figure 4: Timing of the Submissions to the Relevant Ministry of the Annual Reports of a Sample of 57 Agencies, 2012–2014

Prepared by the Office of the Auditor General of Ontario

Annual Reports Submitted to the Relevant Ministry (months after agency fiscal year-end)	2012		2013		2014		Total 2012–2014	
	#	%	#	%	#	%	#	%
< 4[1]	28	54.9	32	58.2	34	59.6	**94**	57.7
5-6	9	17.6	6	10.9	6	10.5	**21**	12.9
7-8	4	7.8	6	10.9	7	12.3	**17**	10.4
9-10	1	2.0	2	3.6	5	8.8	**8**	4.9
11-12	2	3.9	5	9.1	2	3.5	**9**	5.5
More than 12	7	13.8	4	7.3	3	5.3	**14**	8.6
Total	**51[2]**	**100.0**	**55[2]**	**100.0**	**57**	**100.0**	**163**	**100.0**

1. As required by the Agency Establishment and Accountability Directive. See Figure 2 for reporting requirements, including timing of reports.
2. As of September 2015, six agencies for the 2012 year and two agencies for the 2013 year were unable to provide requested information to our office on the timing of their annual report submission to the ministry.

4.2 Maximum Time Frames for Ministers to Approve Annual Reports for Public Release Eliminated for Most Agencies

Under the new Agencies and Appointments Directive, a minister, through choice or accidental omission, could never approve an agency's annual report (and therefore would not be required to make the report public) but would still be in compliance with the directive. The previous directive required the responsible minister to table the annual report within 60 days of receiving it. The new directive, on the other hand, no longer requires the minister to do so. Instead, if tabling the report in the Legislature is required by statute for that agency, the annual report must also be posted on a website within 30 days after tabling. If tabling is not required by statute, the report must be posted on a website no more than 30 days after the Minister approved it. However, there is no requirement specifying how soon the Minister must approve the report after receiving it from the agency. As discussed in the **Section 4.1**, failure of ministers to approve reports in a timely manner has been a more significant issue than agencies not submitting their reports on time. In other words, ministerial approval has been the delay in the timely release of information. The change in the directive removing the requirement for ministers to approve annual reports within 60 days of receiving them removes the incentive for ministers to reduce this delay.

RECOMMENDATION 2

To ensure that the annual reports of provincial agencies are released promptly, Treasury Board Secretariat should advise the government to consider revising the Agencies and Appointments Directive to specify the period of time for ministerial approval of agency annual reports after ministers receive them.

SECRETARIAT RESPONSE

To ensure that ministers table and/or otherwise make publicly available agency governance reports in a timely manner, Treasury Board Secretariat will propose timeframe amendments to the public posting section in the Agencies and Appointments Directive to TB/MBC.

4.3 Directive No Longer Requires Annual Reports to Be Tabled

Ontario has moved away from tabling reports—presenting them officially in the Legislature—as a means to hold agencies accountable. In some cases, agencies' annual reports must be tabled if the law that established them or their Memorandum of Understanding (MOU) with their responsible minister specifies it. Where there is no applicable legislation, agencies must also follow the new Agencies and Appointments Directive, which came into force in February 2015 and requires the annual reports (except for advisory agencies) to be posted on a public website, but not tabled.

Some would argue that tabling is not necessary because the Legislature's Standing Committee on Government Agencies is empowered to review the operations of all provincial agencies, regardless of whether their annual reports have been tabled. The view of Management Board of Cabinet is that only posting annual reports on websites is preferable to also tabling them in the Legislature because posting on a public website invites the public to engage in the political process. Posting on public websites is seen as part of the government's Open Government initiative announced by the Premier in October 2013. However, the new directive says all reports must be posted on a website after being approved by the minister—but, as previously mentioned in **Section 4.2**, no timetable is given for a timely ministerial approval preceding public posting.

We believe that some measure of accountability is lost if our elected officials are not also formally notified when reports become publicly available that document the operations and expenditures of agencies that are responsible for billions of dollars of public funds. If reports are not tabled, another way is needed to notify elected officials of their public release. In this way, the democratic role of the Legislature is upheld and public access to vital information is enhanced.

RECOMMENDATION 3

To increase the accountability of publicly funded provincial agencies after the directive was changed so that annual reports are no longer required to be tabled, Treasury Board Secretariat should advise the government to establish a process to ensure that all elected officials are notified when agencies publicly release their annual reports.

SECRETARIAT RESPONSE

By April 2016, Treasury Board Secretariat will consult with the Legislative Assembly of Ontario to find an appropriate mechanism for keeping all elected representatives informed of the public posting of provincial agency governance documents, including annual reports.

4.4 Requirements for Agency Annual Reports Lack Consistency

As noted previously, timelines for an agency to submit its report and for the minister to table or approve for public posting may be set out in the legislation that established a provincial agency, in a Memorandum of Understanding (MOU) between the agency and its responsible minister, and/or in the directive.

We reviewed the legislative requirements of all 57 sampled agencies and found that they vary considerably with respect to when their annual reports must be submitted to their ministers and then tabled in the Legislature. Further, under the new directive, the public disclosure of agency annual reports not subject to legislated requirements is at the discretion of government. As reflected in **Figure 5**, we noted the following with respect to agencies' 2014 annual reports:

- Fifty of the 57 agencies had legislated requirements for the annual report to be submitted to their ministry, but only 14 referred to specific timelines (i.e., days required). We noted that of the 14 with specific timelines, only five, or 36%, met the legislated requirement.
- Fifty of the 57 agencies had legislated requirements for the ministry to table their annual report in the Legislature, but only six referred to specific timelines (i.e., days required). We noted that of the six with specific timelines, only one, or 17%, met the legislated requirement.

As **Figure 6** indicates, for the 43 sampled agencies without legislated requirements, we reviewed compliance with their MOU-required timelines for submitting and tabling their 2014 annual reports and noted the following:

- All but one of the agencies' MOUs referred to specific timelines (i.e., days required) for their annual report to be submitted to their ministry. We noted that only 23, or 55%, met their MOU requirements.
- Seventeen of the agencies had MOUs that required their annual report to be tabled in the Legislature within a specific timeline (i.e., days required). We noted that of these 17, only two, or 12%, met their MOU requirements.

We surveyed other Canadian jurisdictions to determine how they ensure annual reports of their agencies are issued and/or tabled in a timely and consistent manner. The results are shown in **Figure 7**. Some agencies in other Canadian provinces and territories are subject to annual reporting requirements specified either by the agencies' enabling legislation or by a central piece of legislation that covered several agencies (this is indicated by the "x"s under "… the same requirements apply to all agencies" in **Figure 7**).

- British Columbia, Prince Edward Island, the Northwest Territories and Nunavut have the

Figure 5: Sample Compliance with Specific Legislated Time Frames for Submitting and Tabling Annual Reports

Prepared by the Office of the Auditor General of Ontario

	Submission of Annual Report			Tabling of Annual Report		
Agency	**Legislated Requirement (days after year end)**	**Actual Submission Time, 2014 (days after year end)**	**Legislated Requirement Met? (yes/no)**	**Legislated Requirement (days after submission)**	**Actual Tabling Time, 2014 (days after submission)**	**Legislated Requirement Met? (yes/no)**
Agricorp	120	119	yes	–[1]	298	n/a
Algonquin Forestry Authority	91	129	no	–[1]	not tabled[2]	n/a
Deposit Insurance Corporation of Ontario	122	112	yes	–[1]	268	n/a
eHealth Ontario	120	121	no	90	363	no
Legal Aid Ontario	122	253	no	–[1]	149	n/a
Metrolinx	122	185	no	60	161	no
Ontario Capital Growth Corporation	90	91	no	–[1]	235	n/a
Ontario Educational Communications Authority (TVO)	120	122	no	60	88	no
Ontario Electricity Financial Corporation	153	260	no	–[1]	167	n/a
Ontario Energy Board	183	182	yes	31	190	no
Ontario Financing Authority	90	115	no	–[1]	312	n/a
Ontario French-Language Educational Communications Authority (TFO)	120	120	yes	60	254	no
Ontario Infrastructure and Lands Corporation	90	122	no	–[1]	266	n/a
Ontario Securities Commission	183	122	yes	31	8	yes

1. Legislated tabling requirements are not stated within a specific time frame. For example, the legislation may simply require the Minister to "lay the report before the Assembly," without specifying a number of days.
2. The Agency's annual report had not been tabled as of September 29, 2015.

most consistent and stringent requirements. In these provinces and territories, statutes govern annual reporting requirements, and these requirements include deadlines applicable to all agencies.

- In Quebec and in Newfoundland and Labrador, statutes also govern annual reporting requirements, but the deadlines for reporting vary by agency, depending on the statute (in Quebec) or on the requirements set by the Lieutenant-Governor in Council (in Newfoundland and Labrador).
- Saskatchewan has consistent and stringent requirements for all provincial corporations to report annually by a set deadline, and most, but not all, agencies' enabling statutes also set out reporting requirements.
- The requirements set out by statute to govern agency annual reporting in Alberta, Manitoba, New Brunswick and Yukon Territory extend to most, but not all, agencies.

In our view, the current situation in Ontario lends itself to unnecessary confusion. The fact that the reporting timelines for an agency and its responsible minister may be found in one of three different places—the establishing legislation, an MOU or the directive—creates needless complications. This could contribute to unnecessary delays in the finalizing and tabling of annual reports, or to reports being submitted or released according to the wrong timelines, such as if the directive is followed rather than the relevant legislation or MOU.

Presumably, the directive constitutes what the Management Board of Cabinet deems to be the most desirable practice with respect to timelines for reporting. *In view of that, it would make sense* for the system to be simplified so that all agencies follow the directive.

Figure 6: Sample Compliance with Memorandum of Understanding Time Frames for Submitting and Tabling Annual Reports, for Entities Without Legislated Requirements, 2014

Prepared by the Office of the Auditor General of Ontario

	Submission of Annual Report			Tabling of Annual Report		
Agency	MOU Requirement (days after year end)	Actual Submission Time, 2014 (days after year end)	MOU Requirement Met? (yes/no)	MOU Requirement (days after submission)	Actual Tabling Time, 2014 (days after submission)	MOU Requirement Met? (yes/no)
Agricultural Research Institute of Ontario	90	259	no	—[1]	158	n/a
Cancer Care Ontario	120	120	yes	60	not tabled[2]	no
Central East Local Health Integration Network	90	88	yes	—[1]	286	n/a
Central Local Health Integration Network	90	88	yes	—[1]	286	n/a
Central West Local Health Integration Network	90	88	yes	—[1]	286	n/a
Champlain Local Health Integration Network	90	88	yes	—[1]	286	n/a
Education Quality and Accountability Office	120	119	yes	—[1]	121	n/a
Erie St. Clair Local Health Integration Network	90	86	yes	—[1]	288	n/a
Financial Services Commission of Ontario	231	228	yes	60	203	no
Grain Financial Protection Board	120	234	no	—[1]	183	n/a
Hamilton Niagara Haldimand Brant Local Health Integration Network	90	88	yes	—[1]	286	n/a
Liquor Control Board of Ontario	120	176	no	60	276	no
Livestock Financial Protection Board	120	234	no	—[1]	183	n/a
Metropolitan Toronto Convention Centre	120	380	no	60	29	yes
Mississauga Halton Local Integration Network	90	87	yes	—[1]	287	n/a
Niagara Parks Commission	120	337	no	60	203	no
North East Local Health Integration Network	90	87	yes	—[1]	287	n/a
North Simcoe Muskoka Local Health Integration Network	90	88	yes	—[1]	286	n/a

	Submission of Annual Report			Tabling of Annual Report		
Agency	MOU Requirement (days after year end)	Actual Submission Time, 2014 (days after year end)	MOU Requirement Met? (yes/no)	MOU Requirement (days after submission)	Actual Tabling Time, 2014 (days after submission)	MOU Requirement Met? (yes/no)
North West Local Health Integration Network	90	87	yes	—[1]	287	n/a
Northern Ontario Heritage Fund Corporation	120	190	no	60	258	no
Office of the Fairness Commissioner	90	88	yes	60	144	no
Ontario Arts Council	120	242	no	60	152	no
Ontario Clean Water Agency	181	121	yes	—[1]	306	n/a
Ontario Immigrant Investor Corporation	120	373	no	—[1]	not tabled[2]	n/a
Ontario Lottery and Gaming Corp	120	395	no	—[1]	79	n/a
Ontario Media Development Corporation	214	214	yes	60	180	no
Ontario Mortgage and Housing Corporation	—[1]	140	n/a	60	70	no
Ontario Mortgage Corporation	120	165	no	60	17	yes
Ontario Northland Transportation Commission	120	165	no	—[1]	not tabled[2]	n/a
Ontario Pension Board	120	91	yes	—[1]	168	n/a
Ontario Place Corporation	120	435	no	60	135	no
Ontario Racing Commission	120	248	no	—[1]	not tabled[2]	n/a
Ontario Science Centre - The Centennial Centre of Science and Technology	244	380	no	—[1]	134	n/a
Ontario Tourism Marketing Partnership Corporation	120	107	yes	60	237	no
Ontario Trillium Foundation	120	120	yes	60	274	no
Ottawa Convention Centre Corporation	120	122	no	60	358	no
Public Health Ontario	120	120	yes	60	255	no
Royal Ontario Museum	120	122	no	60	372	no
South East Local Health Integration Network	90	88	yes	—[1]	286	n/a
South West Local Health Integration Network	90	91	no	—[1]	283	n/a
Toronto Central Local Health Integration Network	90	87	yes	—[1]	287	n/a
Waterloo Wellington Local Health Integration Network	90	91	no	—[1]	283	n/a
Workplace Safety and Insurance Board	120	120	yes	—[1]	334	n/a

1. The MOU makes reference to the Agency or Minister's responsibility to submit or table the annual report, but this requirement is not in the form of a certain amount of days. For example, an MOU may require only that the Minister table the report in the Legislature.

2. The Agency's annual report had not been tabled as of September 29, 2015.

Figure 7: Agency Reporting Requirements in Other Canadian Jurisdictions*

Prepared by the Office of the Auditor General of Ontario

Jurisdiction	Do Statutes Include Reporting Requirements?			What Are the Reporting Requirements?		General Guiding Requirements
	Yes, for All Agencies, and the Same Requirements Apply to All Agencies	Yes, for All Agencies, But Requirements Vary by Agency	Yes, But Only for Some Agencies	All Annual Reports Tabled in Legislature	All Annual Reports Made Publicly Available	
British Columbia	X				X	Required by statute, all government organizations must submit an annual service plan report to their ministers. The reports must be made public by the responsible minister no later than August 31 each year or within 5 months after the organization's fiscal year.
Alberta			X			Only some agencies are mandated by statute to submit and table an annual report in the Legislative Assembly. For these agencies, the timelines for submitting to a minister and for tabling vary from a requirement to table immediately upon receipt, within a certain number of days after the commencement of the next sitting, or "annually, when ready."
Saskatchewan	X			X	X	The *Executive Government Administration Act* requires Ministers (heads of agencies in Saskatchewan) to submit an annual report within 120 days of the agency's preceding fiscal year, and the reports must be prepared at least 20 days before they are due to be laid before the Assembly. Reports are made publicly available, but location varies by agency.
Manitoba			X			No standard requirements exist. Some agencies may be required to submit Annual Reports, as per their enabling legislation. One example: Travel Manitoba must submit an annual report within 6 months of the end of its fiscal year, and the minister must table a copy of the report in the Assembly within 15 days of receipt, but there is no requirement to make the annual report public.
Ontario			X			A government-wide directive requires that agencies not mandated by statute submit their annual report to the responsible minister. Timelines vary on submitting annual reports and whether they must be tabled and made public.

Jurisdiction	Do Statutes Include Reporting Requirements?			What Are the Reporting Requirements?		General Timing Requirements
	Yes, for All Agencies, and the Same Requirements Apply to All Agencies	Yes, for All Agencies, But Requirements Vary by Agency	Yes, But Only for Some Agencies	All Annual Reports Tabled in Legislature	All Annual Reports Made Publicly Available	
Quebec	✓			✓	✓	All agencies are established through statutes and are required to submit their annual reports to their ministers, and the annual reports are then required to be tabled at the National Assembly and be made public on the National Assembly's website. There are no universal timelines established for submitting these, for tabling them, or for publishing them publicly.
New Brunswick			✓			Most Crown agencies have reporting requirements and timelines embedded in their legislation, and where required, they are made public through the Legislative Assembly. In practice, they are also published on the agency's website.
Newfoundland and Labrador		✓		✓	✓	Legislation requires that all government entities table annual reports through the responsible minister. Timelines for submitting annual reports and for tabling them are set by the Lieutenant Governor in Council and are to be tabled and made public annually through "other effective means" (i.e., electronically).
Prince Edward Island	✓			✓	✓	All agencies must provide their ministers with an annual report in a form requested by the minister, and the Minister must table the report within 15 days of receipt, and it must be made public within 6 months of the end of the financial year.
Yukon Territory		✓				Requirements to submit an annual report to the responsible minister vary by agency. Tabling is not usually required, and no timeline for tabling is usually provided for in the statute.
Northwest Territories and Nunavut	✓			✓		By statute, each agency must submit an annual report to its minister within 90 days of the end of its fiscal year. Each minister must table a copy of annual reports for each territorial corporation at the first opportunity following its receipt, but the tabling requirement does not extend to every agency.

* Nova Scotia did not respond to our survey of practices in other jurisdictions.

RECOMMENDATION 6

To ensure that provincial agencies are consistent in following the Agencies and Appointments Directive, Treasury Board Secretariat in conjunction with Management Board of Cabinet, should consider amending the legislation governing some agencies to eliminate any inconsistencies with the directive, or introducing legislation applicable to all agencies that covers the preparation and tabling date or public release date for all annual reports.

SECRETARIAT RESPONSE

Treasury Board Secretariat will advise ministries to consider updates to the constituting statutes of their provincial agencies to eliminate inconsistencies in the requirements regarding tabling and/or public posting dates for governance documents (including annual reports), in order to ensure alignment with the Agencies and Appointments Directive. Treasury Board Secretariat will also actively seek out opportunities, such as good government bills, to co-ordinate these legislative amendments on behalf of other ministries.

4.5 Standing Committee on Government Agencies Has Not Reviewed Many Agencies, Boards and Commissions Since 1996

Between 1978 and 2016, the operations of more than 110 agencies, boards and commissions were reviewed by the Committee. Its review process of agency operations would generally involve calling witnesses (usually senior agency officials, community group representatives and interested officials) to appear before it. We noted that the number of agencies reviewed by the Committee can vary greatly. For example, after March 1996, it conducted no agency reviews for over a decade. Between 2012 and 2016, the Committee reviewed three agencies: the LCBO, Metrolinx and the Workplace Safety and Insurance Board (WSIB). The Committee would normally present a report to the Legislature containing recommendations following its agency reviews. **Figure 8** lists those agencies reviewed by the Committee for which a report was issued between 2006 and 2016.

There is no requirement that all provincial agencies' annual reports be referred to the Legislature's Standing Committee on Government Agencies for review. Under the previous directive, the Committee members would receive a copy of all annual reports because they were all required to be tabled. However, under the new directive, annual reports are not required to be tabled, and therefore the Committee will only receive reports tabled under legislative or MOU requirements (unless it requests them as part of a review). As such, Committee members might not be receiving full information on agencies' annual results that could factor into their selection of which agencies to review.

Figure 8: Standing Committee on Government Agencies—Reviewed Agencies with Committee Report Issued, 2006–2013

Source of data: Standing Committee on Government Agencies

Year	Agency
2006	Liquor Control Board of Ontario
2006	Hydro One
2006	Ontario Lottery and Gaming Corporation
2007	Workplace Safety and Insurance Board
2008	Health Professions Appeal and Review Board
2008	Ontario Infrastructure Projects Corporation (Infrastructure Ontario)
2008	Ontario Educational Communications Authority (TVO)
2008	Ontario Trillium Foundation
2008	Ontario Racing Commission
2010	Ontario Securities Commission
2010	Royal Ontario Museum
2010	Ontario Place Corporation
2010	Human Rights Tribunal of Ontario
2012	Liquor Control Board of Ontario
2012	Workplace Safety and Insurance Board

Note: No agencies were reviewed between 1996 and 2006. The Committee also reviewed Metrolinx in 2014 but did not release a report.

RECOMMENDATION 5

To ensure the ongoing accountability and transparency of the operations of provincial agencies, Treasury Board Secretariat should consult the Legislative Assembly of Ontario on how best to ensure the Standing Committee on Government Agencies is provided with all agencies' annual reports when they are made public, as the annual reports can assist the Standing Committee in determining which agencies it considers for review.

SECRETARIAT RESPONSE

By April 2016, Treasury Board Secretariat will consult with the Legislative Assembly of Ontario to find an appropriate mechanism for keeping all elected representatives informed of the public posting of provincial agency governance documents, including annual reports.

Appendix 1—Crown Agency Classifications Under the Agency Establishment and Accountability Directive (Effective until January 2015)

Sources of data: Ministry of Government Services, Public Appointments Secretariat

Classification (# as of March 2014)*	Primary Functions	Examples
Operational Enterprise (31)	• Commercially sell goods or services to the public (including in competition with the private sector)	• Infrastructure Ontario • Liquor Control Board of Ontario • Metrolinks • Niagara Parks Commission • Ontario Educational Communications Authority (TVO)
Operational Service (37)	• Deliver goods or services to the public (usually with no, or minimal, fees)	• Cancer Care Ontario • Education Quality and Accountability Office • eHealth • Legal Aid Ontario • Ontario Tourism Marketing Partnership Corporation
Regulatory (with or without a governing board) (20)	• Through processes like inspections, investigations, prosecutions, certifications, licensing and rate-setting, make independent decisions that limit or promote the conduct, practice, obligations, rights and responsibilities of an individual, business or corporate body	No governing board: • Financial Services Tribunal • Niagara Escarpment Commission With a governing board: • Financial Services Commission of Ontario • Ontario Securities Commission
Trust (5)	• Administer funds and/or other assets for beneficiaries named under statute	• Ontario Public Service Pension Board • Workplace Safety and Insurance Board
Advisory (67)	• Provide ongoing information and/or advice to help develop policy and/or deliver programs	• Accessibility Standards Advisory Council • Committee to Evaluate Drugs • Livestock Medicines Advisory Committee
Adjudicative (37)	• Make independent quasi-judicial decisions on the obligations, rights and responsibilities of individuals, businesses or corporate bodies in light of policies, regulations and statutes • Resolve disputes relating to the above • Hear appeals against previous decisions	• Assessment Review Board • Human Rights Tribunal of Ontario • Ontario Labour Relations Board
Crown Foundations (0)	• Established under the *Crown Foundations Act* or under the *University Foundation Act* • Solicit, manage and distribute donations of money or other assets donated for a named organization in whose interests the Foundation has been established	• None

* There were a total of 197 agencies as of March 2014.

Appendix 2—Agency Types Under the Agency and Appointments Directive (Effective as of February 2015)

Source of data: Treasury Board Secretariat

Type (# as of June 2015)*	Primary Characteristics	Examples
Board-governed Provincial Agencies (77)	• Have the authority to make operating decisions through a governing board of directors • Have the financial and operating authority to carry on a business and conduct operations in support of the agency's mandate • Board of directors is accountable to the minister for the achievement of the agency's mandate (chair is the board's representative to the minister) • Many have their own staff and organizational structure and do not rely on ministries for these functions • Board appointees are required to exercise a duty of care for the agencies, requiring them to act honestly, in good faith and in the best interest of the agency • Primarily agencies previously classified under the Agency Establishment and Accountability Directive as operational enterprises, operational services and board-governed regulatory agencies	• Cancer Care Ontario • Education Quality and Accountability Office • eHealth • Financial Services Commission of Ontario • Infrastructure Ontario • Legal Aid Ontario • Liquor Control Board of Ontario • Metrolinks • Niagara Parks Commission • Ontario Educational Communications Authority (TVO) • Ontario Lottery and Gaming Corporation • Ontario Public Service Pension Board • Ontario Securities Commission • Ontario Tourism Marketing Partnership Corporation • Workplace Safety and Insurance Board
Non-board-governed Provincial Agencies (47)	• Lack authority to make their own operational decisions—ministries must provide operational support for agencies • Include regulatory agencies and adjudicative tribunals • Adjudicative tribunals must also comply with the provisions of the *Adjudicative Tribunals Accountability, Governance and Appointments Act, 2009*, in a way that promotes effective use of resources and minimizes duplication	• Assessment Review Board • Financial Services Tribunal • Human Rights Tribunal of Ontario • Ontario Labour Relations Board
Advisory Provincial Agencies (60)	• Provide specific advice to a minister or the Premier • Are composed of one or more individuals appointed by the government • Are established for more than three years • Their administrative functions are carried out by the responsible ministry • Are created solely for the purpose of providing advice or recommendations as specified in their terms of reference	• Accessibility Standards Advisory Council • Committee to Evaluate Drugs • Fire Marshal's Public Fire Safety Council • Justices of the Peace Remuneration Commission • Livestock Medicines Advisory Committee

* There were a total of 184 agencies as of June 2015 (15 agencies were dissolved and two were created since March 2014).

Appendix 3—57 Crown Agencies Surveyed

Prepared by the Office of the Auditor General of Ontario

Agricorp
Agricultural Research Institute of Ontario
Algonquin Forestry Authority
Cancer Care Ontario
Central East Local Health Integration Network
Central Local Health Integration Network
Central West Local Health Integration Network
Champlain Local Health Integration Network
Deposit Insurance Corporation of Ontario
Education Quality and Accountability Office
eHealth Ontario
Erie St. Clair Local Health Integration Network
Financial Services Commission of Ontario
Grain Financial Protection Board
Hamilton Niagara Haldimand Brant Local Health Integration Network
Legal Aid Ontario
Liquor Control Board of Ontario
Livestock Financial Protection Board
Metrolinx
Metropolitan Toronto Convention Centre
Mississauga Halton Local Integration Network
Niagara Parks Commission
North East Local Health Integration Network
North Simcoe Muskoka Local Health Integration Network
North West Local Health Integration Network
Northern Ontario Heritage Fund Corporation
Office of the Fairness Commissioner
Ontario Arts Council
Ontario Capital Growth Corporation
Ontario Clean Water Agency
Ontario Educational Communications Authority (TVO)
Ontario Electricity Financial Corporation
Ontario Energy Board
Ontario Financing Authority
Ontario French-Language Educational Communications Authority (TFO)
Ontario Immigrant Investor Corporation
Ontario Infrastructure and Lands Corporation
Ontario Lottery and Gaming Corporation
Ontario Media Development Corporation
Ontario Mortgage and Housing Corporation
Ontario Mortgage Corporation
Ontario Northland Transportation Commission
Ontario Pension Board
Ontario Place Corporation
Ontario Racing Commission
Ontario Science Centre—The Centennial Centre of Science and Technology
Ontario Securities Commission
Ontario Tourism Marketing Partnership Corporation
Ontario Trillium Foundation
Ottawa Convention Centre Corporation
Public Health Ontario
Royal Ontario Museum
South East Local Health Integration Network
South West Local Health Integration Network
Toronto Central Local Health Integration Network
Waterloo Wellington Local Health Integration Network
Workplace Safety and Insurance Board

Chapter 6

Review of Government Advertising

Significant Changes made to the *Government Advertising Act, 2004*

The Ontario government made significant changes to the *Government Advertising Act, 2004* (Act) this year, and in the process it significantly weakened the Auditor General's ability to ensure that no public money is spent on advertising that is partisan.

In its original form, the Act required our Office to review most government advertising and, in cases where we deemed it not partisan, to issue a formal approval before an item could be used. It also set out standards to guide this work, and gave the Auditor General discretionary authority to determine what is partisan.

The amendments, contained in the *Budget Measures Act, 2015*, did away with this discretionary authority. Instead, they provide a specific and narrow definition of what is partisan, and only this definition may be used in our reviews.

While an approval from the Auditor General is still required before an advertisement can run, this approval is essentially a foregone conclusion as long as the item does not use the name, voice, or image of an MPP, does not "directly" identify or criticize a member or recognized political party in the Assembly, and does not use the name or logo of a recognized political party. For example, a television commercial saying that "this government is the best in a generation" would, under the amended Act, receive approval so long as it avoided using the likeness, voice or name of an MPP, or a political party name or logo.

In effect, the amended Act now requires our Office to "rubber-stamp" all advertising submitted to us, including some items this year that we believe would have been considered partisan under the original Act.

The process by which the Act was amended is also worth noting. Our Office never received a copy of the draft amendments for review in advance of their introduction, and we were not consulted about the proposed changes.

After the proposed amendments were made public, we urged the government to reconsider. On May 12, 2015, we issued a Special Report (**www.auditor.on.ca/en/reports_en/GAA_en.pdf**) outlining our concerns. We highlighted that the proposed amendments could lead to government advertising that would meet the requirements of the Act, but still be considered partisan by any reasonable measure. This type of advertising, we wrote, would be of little value to the taxpayers who paid for it.

It would also negatively impact the credibility of the Auditor General as an independent Legislative Officer working at arm's length from the government.

The *Budget Measures Act, 2015*, including the amendments, was passed in the Legislature on

June 3, 2015, and received Royal Assent the following day. Regulations arising from the amendments took effect on June 16, 2015.

Partisan Advertising Defined Narrowly

The amendments repealed two critical subsections of the Act that allowed the Auditor General to consider additional factors beyond the specific ones in the amended Act when assessing whether a primary objective of an item is to promote the partisan interests of the governing party.

As amended, the Act now says an advertisement can be deemed partisan only if:

- "it includes the name, voice or image of a member of the Executive Council or a member of the Assembly, unless the item's primary target audience is located outside of Ontario;
- "it includes the name or logo of a recognized [political] party ...;
- "it directly identifies and criticizes a recognized party or a member of the Assembly; or
- "it includes, to a significant degree, a colour associated with the governing party ..."

It is worth contrasting the government's limited definition of partisan with the one offered in the second edition of the *Canadian Oxford Dictionary*; it defines the adjective "partisan" much more broadly as "loyal to a particular cause; biased." A great number of elements beyond the government's narrow definition could be built into an advertisement to make it partisan under the dictionary definition, but still conform to the amended Act.

Figure 1 provides a comparison of the original and amended standards in the Act for determining whether an item is partisan. Under the amendments, the Auditor General no longer has the authority to consider any additional factors beyond the ones above.

When the Act was first proclaimed in 2005, our Office established a set of criteria designed to identify the characteristics of partisan messaging based on research and input from experts in the field, including Advertising Standards Canada. We applied these criteria to help us determine whether a primary objective of a proposed advertisement was to foster a positive impression of the governing party. The criteria included questions such as: Is the message fair, balanced and objectively presented? Is the tone of the item self-congratulatory to the government? Is the advertisement's timing likely to bring the government significant political gains?

Without the authority to ask these questions, our Office now is in the position of approving advertisements as non-partisan because they conform to the narrow definition of the amended Act, even though they could be seen as partisan. We provide an example of this further in this chapter in the section entitled **Issues Under Amended Act**.

Other Advertising Standards Repealed

The government also repealed standards in the original Act that helped ensure government advertisements served a legitimate purpose. The original requirements stipulated that each item submitted to my Office had to be a reasonable means of:

- informing people about government programs, policies and services;
- informing people about their rights and responsibilities;
- changing social behaviour in the public interest; or
- promoting Ontario as a good place in which to live, work, invest, study or visit.

These standards were replaced with non-binding examples of reasons why the government may choose to advertise. We found the old standards useful and effective in our review process to promote transparency and accountability in government advertising. These standards also helped ensure that items provided useful information and did not unduly promote the governing party or criticize its opponents.

We were also concerned with the new powers the government gave itself to draft specific regulations regarding important aspects of the advertising review process; legislation is debated openly in the

Figure 1: Section 6 of the *Government Advertising Act, 2004*, Original and Amended

Source of data: *Government Advertising Act, 2004*

Original

Required standards

6. (1) The following are the standards that an item is required to meet:

1. It must be a reasonable means of achieving one or more of the following purposes:
   - i. To inform the public of current or proposed government policies, programs or services available to them.
   - ii. To inform the public of their rights and responsibilities under the law.
   - iii. To encourage or discourage specific social behaviour, in the public interest.
   - iv. To promote Ontario or any part of Ontario as a good place to live, work, invest, study or visit or to promote any economic activity or sector of Ontario's economy.
2. It must include a statement that the item is paid for by the Government of Ontario.
3. It must not include the name, voice or image of a member of the Executive Council or a member of the Assembly.
4. It must not be partisan.
5. It must not be a primary objective of the item to foster a positive impression of the governing party or a negative impression of a person or entity who is critical of the government.
6. It must meet such additional standards as may be prescribed. 2004, c. 20, s. 6 (1).

Advertising outside Ontario

(2) Paragraph 3 of subsection (1) does not apply with respect to an item for which the primary target audience is located outside of Ontario. 2004, c. 20, s. 6 (2).

Partisan advertising

(3) An item is partisan if, in the opinion of the Auditor General, a primary objective of the item is to promote the partisan political interests of the governing party. 2004, c. 20, s. 6 (3).

Same

(4) The Auditor General shall consider such factors as may be prescribed, and may consider such additional factors as he or she considers appropriate, in deciding whether a primary objective of an item is to promote the partisan political interests of the governing party. 2004, c. 20, s. 6 (4).

Amended

Standards

6. (1) The following are the standards that an item is required to meet:

1. It must include a statement that the item is paid for by the Government of Ontario.
2. It must not be partisan as determined under subsection (2).
3. It must meet any additional standards that may be prescribed.

Partisan advertising

(2) An item is partisan if,

(a) it includes the name, voice or image of a member of the Executive Council or of a member of the Assembly, unless the item's primary target audience is located outside of Ontario;

(b) it includes the name or logo of a recognized party, within the meaning of subsection 62 (5) of the *Legislative Assembly Act*;

(c) it directly identifies and criticizes a recognized party or a member of the Assembly; or

(d) it includes, to a significant degree, a colour associated with the governing party, subject to subsection (4).

Reference to title

(3) Clause (2)(a) does not prevent the use of a member's title.

Exception, colour

(4) Clause (2)(d) does not apply to the depiction of a thing that is commonly depicted in a colour associated with the governing party.

■ repealed text

■ new text

Legislature, but regulations are drafted with no debate, which makes the process less transparent. The new regulations took effect on June 16, less than two weeks after the amended Act received Royal Assent. They included the revised timing under which our Office must notify the head of a government office of the results of our reviews.

In our Special Report last May, I asked the government to relieve my Office of its advertising-review duties and assign them to a government ministry or agency if it decided to proceed with the amendments. The government declined my request, and our Office is complying with the requirements of the amended Act.

Limited Definition of Digital Advertising

Digital advertising—for example, advertising on the Internet or in social media—was not subject to the Auditor General's review in the original Act. Since 2011, our Office has called on the government to close this loophole, noting that this form of advertising accounted for a growing share of the province's advertising budget.

The government included digital media in the amended Act this year, and defined it in a regulation as "an advertisement consisting of video, text, images or any combination of these that a government proposes to pay to have displayed on a website."

However, this regulation exempts social media websites, including Facebook and Twitter, and digital advertisements displayed on a website by search-marketing services such as Google AdWords. In 2013/14, the government spent more than $2 million on search-marketing services. This past fiscal year, it spent $1.3 million. Our Office has no authority to ensure this spending is for non-partisan purposes.

In any case, the addition of digital media as reviewable is not meaningful in light of the limits on our ability to determine what constitutes a partisan advertisement.

Changes to Review Process

The original Act gave our Office seven business days in which to determine whether an advertisement met the standards of the Act. The amended Act shortens that to five business days—and adds digital advertising to our list of responsibilities.

Previously, we offered an optional pre-review service to government offices in which they could first secure an opinion on a proposed advertisement before spending significantly on production. This pre-review was outside the Act, and we offered it on a voluntary basis without a set deadline.

The amended Act now includes a formal requirement for reviews of preliminary versions of television and cinema advertisements, and requires us to complete them in nine business days.

Issues Under the Amended Act

Within a month of proclamation of the new Act, we approved a radio and digital advertising campaign from the Ministry of Finance on the Ontario Retirement Pension Plan (ORPP), a signature policy of the current government contained in the 2015 Budget. A few weeks later, while these ads were still running, the Ontario Liberal Party launched a television advertisement called *Never Slow Down*, in which the Premier speaks about ensuring that Ontarians have a decent pension to retire on.

Under the original Act, we could have expressed concerns about the overlap between the publicly funded advertisement and the political-party commercials, and the fact that the taxpayer-funded items effectively reinforced the partisan messaging of the Ontario Liberal Party. We would also have had the authority to withdraw our approval for the Ministry of Finance item, or even disallow it entirely in the first place on grounds that it claimed the ORPP was "here" when, in fact, it is at this point planned to begin operating in 2017.

Under the amended Act, however, the ORPP advertisement met all required standards and continued to air at the same time as the Ontario Liberal Party spot.

In August 2015, the government submitted two TV spots for approval about the ORPP. As with the previous submission in this campaign, we had to approve these ads under the amended legislation. However, we did note that we had significant concerns about the content of the ads and the timing in which they were to run.

We found the voiceover in one of the TV spots called *River* that states: "But there's a huge gap because, if you don't have a workplace pension, you won't have nearly enough," may not be factual. As well, both TV spots (and other advertisements in this campaign) said the ORPP was created "to help shrink the retirement savings gap." We noted our concern that the visual, in which a person jumps clear of the gap, could leave the impression that the ORPP will in fact close the retirement savings gap. This could be misleading.

We also had concerns that, in the context of the federal election campaign and verbal exchanges between the Premier and the Prime Minister over the ORPP, these advertisements could have been perceived as having a partisan objective, especially since the advertising campaign was set to run right up to federal election voting day.

Results of Our 2014/15 Advertising Reviews

In the fiscal year ending March 31, 2015 (prior to the changes in the Act), we reviewed 653 individual advertising items in 182 submissions, with a total value of nearly $20.85 million. This value excludes $9.16 million in digital advertising, as it was not then reviewable. See **Figure 2** for a breakdown of spending by medium in the past year, and **Figure 3** for total annual spending over the last nine years.

A breakdown of expenditures this past year by each government ministry is provided in **Figure 4**.

Figure 5 shows the top 10 advertising campaigns in 2014/15 by expenditure. These 10 campaigns accounted for almost 82% of the total reviewable expenditure on advertisements that our Office reviewed in the past year.

In all cases, we gave our decision within the seven business days required under the original Act then in effect. Although the time required for a decision varies with the complexity of the submission and other work priorities, the average turnaround time during the past fiscal year was about four business days. In addition, we examined five pre-review submissions comprising 18 advertisements at a preliminary stage of development. The average turnaround time last fiscal year for pre-review submissions was about 10 business days. (The new limit is nine business days.)

Figure 2: Advertising Expenditure by Medium, 2014/15

Source of data: Ontario government ministries/Advertising Review Board

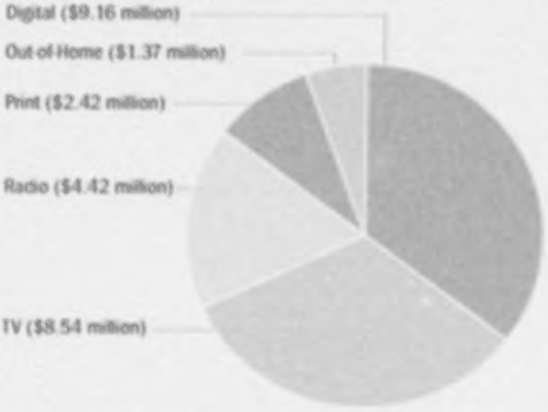


Figure 3: Advertising Expenditures, 2007–2015 ($ million)

Source of data: Office of the Auditor General of Ontario/Advertising Review Board

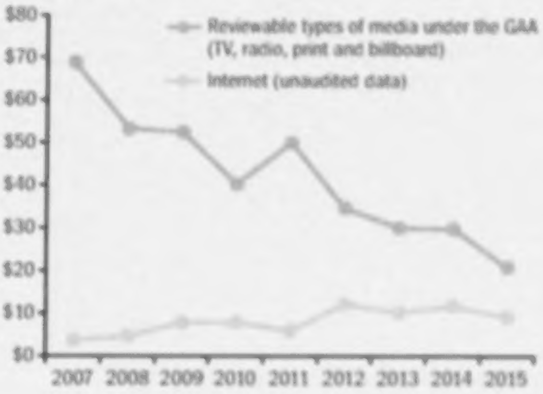


Figure 4: Expenditures for Reviewable Advertisements and Printed Matter under the *Government Advertising Act, 2004*, April 1, 2014–March 31, 2015*

Source of data: Ontario government ministries/Advertising Review Board

Ministry	# of Submissions	# of Items	Agency Fees ($)	Production Costs ($)	Media Costs ($) TV	Radio	Print	Out-of-Home[1]	Total ($)
Agriculture, Food and Rural Affairs	7	55	96,421	177,243	2,313,164	1,049,648	62,167	376,225	4,074,868
Attorney General[2]	4	7	–	49	–	–	14,436	–	14,485
Citizenship, Immigration and International Trade	7	55	104,405	1,235,906	1,797,854	–	239,912	–	3,378,077
Community Safety	2	2	–	18,000	46,820	–	1,870	–	66,690
Economic Development, Employment and Infrastructure	9	14	55,773	62,771	24,858	346,357	(26,460)[3]	(36,015)[3]	427,284
Education	4	34	65,034	46,227	–	633,742	109,222	–	854,225
Environment and Climate Change	1	2	–	–	–	–	27,174	–	27,174
Finance	3	34	61,000	27,000	(8,611)[3]	157,030	704,880[4]	–	941,299
Government and Consumer Services	20	43	124,343	468,273	1,475,938	–	26,559	177,068	2,272,181
Health and Long-Term Care	10	22	264,667	463,596	492,477	1,110,348	322,503	462,586	3,116,177
Labour	4	50	–	900	(1,802)[3]	578,631	49,917	–	627,646
Municipal Affairs and Housing	1	1	–	2,213	–	–	6,907	–	9,120
Natural Resources and Forestry	33	127	–	5,233	–	29,070	186,819	10,000	231,122
Tourism, Culture and Sport (Pan/Parapan American Games)	70	99	2,107	13,028	44,604	70,275	247,753	43,548	421,315
Training, Colleges and Universities	3	61	105,931	359,293	2,352,735	337,250	256,305	198,883	3,609,397
Transportation	4	47	150,075	202,490	(3,292)[3]	102,683	193,032	137,181	782,169
Total	**182**	**653**	**1,029,756**	**3,082,222**	**8,534,745**	**4,415,034**	**2,421,998**	**1,389,476**	[illegible]

* The *Auditor General Act* requires our Office to report annually on expenditures for advertising and printed matter reviewable under the GAA. In order to verify completeness and accuracy, we reviewed selected payments and supporting documentation. We also examined compliance relating to the sections of the Act dealing with submission requirements and use of ads during the Auditor General's review.

1. Includes billboards, transit posters, digital screens, etc.
2. Includes one ad that was published without being sent to our office for review as required.
3. Negative total due to media credits being applied.
4. Includes a print credit of $8,650 from the previous fiscal year.

Note: The ministries of Aboriginal Affairs, Children and Youth Services, Community and Social Services, Correctional Services, Energy, and Northern Development and Mines did not incur any reviewable advertising costs under the GAA.

Figure 5: Top Ten Advertising Campaign Expenditures for 2014/15* ($ million)

Source of data: Ontario government ministries/Advertising Review Board

Campaign	Ministry	Expenditure
Foodland Ontario	Agriculture, Food and Rural Affairs	4.06
Sexual Violence and Harassment	Citizenship, Immigration and International Trade	2.23
Consumer Protection	Government and Consumer Services	2.23
30% Off Tuition	Training, Colleges and Universities	1.83
Ontario Student Assistance Program	Training, Colleges and Universities	1.79
Health Care Options	Health and Long-Term Care	1.12
Remembrance Day	Citizenship, Immigration and International Trade	0.96
Ontario Savings Bonds	Finance	0.95
Seasonal Influenza	Health and Long-Term Care	0.93
Child Care – All Kinds of Questions	Education	0.85
Total		**16.95**

* Campaign expenditures include digital advertising costs.

No Violations; one Contravention of the Act

We found all advertising submitted to our Office in the 2014/15 fiscal year complied with the Act. However, we learned that the Ministry of the Attorney General published an advertisement about jury duty awareness in a newspaper without first submitting it to our Office for approval, as required by the Act. Had this advertisement been submitted to us for review, we would have approved it with the addition of a statement that it was paid for by the government of Ontario.

Overview of our New Compliance Function

What Falls Under the Act

The Act applies to advertisements that government offices—specifically, government ministries, Cabinet Office and the Office of the Premier—propose to pay to have published in a newspaper or magazine, displayed on a billboard, displayed digitally in a prescribed form or manner, or broadcast on radio or television, or in a cinema. It also applies to printed matter that a government office proposes to pay to have distributed to households in Ontario by bulk mail or another method of bulk delivery. Advertisements meeting any of these definitions are known as "reviewable" items and must be submitted to my Office for review and approval for compliance with the amended Act before they can run.

The Act excludes from our review advertisements for specific government jobs (but not generic recruitment campaigns) and notices to the public required by law. Also exempt are advertisements on the provision of goods and services to a government office, and those regarding urgent matters affecting public health or safety.

The Act requires government offices to submit reviewable items to our Office. They cannot publish, display, broadcast, or distribute the submitted item until the head of that office (usually the deputy minister) receives notice, or is deemed to have received notice, that the advertisement has been approved.

If the Auditor General's Office does not render a compliance decision within the five business days set out in regulation, then the government office is deemed to have received notice that the item is in compliance with the Act, and may run it.

If my Office notifies the government office that the item is not in compliance with the Act, the item may not be used. However, the government office may submit a revised version of the rejected item for another review. Compliance approvals are valid for one year.

Revised Compliance Criteria for Proposed Advertisements

In conducting its review, the Auditor General's Office now only determines whether the proposed advertisement is in compliance with the amended Act. The following are the areas that the advertisement must be in compliance with:

1. It must include a statement that it is paid for by the government of Ontario.
2. It must not include the name, voice or image of a member of the Executive Council or of a member of the Assembly, unless the item's primary target audience is located outside of Ontario.
3. It must not include the name or logo of a recognized party.
4. It must not directly identify and criticize a recognized party or a member of the Assembly.
5. It must not include, to a significant degree, a colour associated with the governing party.

We have no authority to consider any other factors to determine whether an item is partisan.

Other Review Protocols

Since assuming responsibility for the review of government advertising in 2005, our Office has worked with the government to clarify procedures to cover areas where the Act is silent. What follows is a brief description of the significant areas that have required such clarification over the years. Our current protocols are noted below.

Websites

Although websites were not specifically reviewable in the original Act, we took the position that a website or similar linkage used in an advertisement is an extension of the advertisement. Following past discussions with the government, our Office came to an agreement soon after the legislation was first passed that the first page, or "click," of a website cited in a reviewable item would be included in our review. We consider the content only of the first click, unless it is a gateway page or lacks meaningful content, in which case we review the next page. We examine this page for any content that may not meet the standards of the amended Act. For example, the page must not include a minister's name or photo.

Social Media

Over the years, the government has increased its presence on social media sites. Our Office often receives advertisements for approval that use icons pointing to various social media sites. Although the original Act was silent on this, we reached an agreement with the government that we would perform an initial scan of any social media channel cited in an advertisement to ensure that the standards of the Act are being followed. However, we recognize that content on these networks changes frequently and can at times be beyond the control of the government office. Our review is therefore focused only on the content that the government controls.

The amended Act specifically excludes digital advertisements on social media websites from our review.

Third-party Advertising

Government funds provided to third parties are sometimes used for advertising. The government and my Office have agreed that third-party advertising must be submitted for review if it meets all three of the following criteria:

- A government office provided the third party with funds intended to pay part or all of the cost of publishing, displaying, broadcasting or distributing the item.

- The government granted the third party permission to use the Ontario logo or another official provincial visual identifier in the item.
- The government office approved the content of the item.

This agreement currently remains in place.

External Advisers

The *Auditor General Act* gives the Auditor General the power to appoint an Advertising Commissioner to help fulfill the requirements of the *Government Advertising Act, 2004*. However, we have chosen instead to engage external advisers to assist in the review of selected submissions as needed. The following advisers have provided us with valuable assistance in the past year and over the past decade:

- Rafe Engle (J.D., LL.M.) is a Toronto lawyer specializing in advertising, marketing, communications and entertainment law for a diverse group of clients in the for profit and not for profit sectors. He also acts as outside legal counsel for Advertising Standards Canada, and as Chair of its Advertising Standards Council.
- Jonathan Rose is Associate Professor of Political Studies at Queen's University. He is a leading Canadian academic with interests in political advertising and Canadian politics. Professor Rose has written a book on government advertising in Canada and a number of articles on the way in which political parties and governments use advertising.
- Joel Ruimy is a communications consultant with three decades of experience as a journalist, editor and producer covering Ontario and national politics in print and television.
- John Sciarra is the former director of operations in our Office. He was instrumental in implementing our advertising review function and overseeing it until his retirement in 2010.

Chapter 7

The Standing Committee on Public Accounts

Role of the Committee

The Standing Committee on Public Accounts (Committee) is empowered to review and report to the Legislative Assembly its observations, opinions and recommendations on reports from the Auditor General and on the Public Accounts. These reports are deemed to have been permanently referred to the Committee as they become available. The Committee examines, assesses and reports to the Legislative Assembly on a number of issues, including the economy and efficiency of government and broader public sector operations, and the effectiveness of government programs in achieving their objectives.

Under sections 16 and 17 of the *Auditor General Act*, the Committee may also request that the Auditor General examine any matter in respect of the Public Accounts or undertake a special assignment on its behalf.

The Committee typically holds a number of hearings throughout the year relating to matters raised in our Annual Report or in our special reports and presents its observations and recommendations to the Legislative Assembly.

Appointment and Composition of the Committee

Members of the Committee are typically appointed by a motion of the Legislature. The number of members from any given political party reflects that party's representation in the Legislative Assembly. All members except the Chair may vote on motions, while the Chair votes only to break a tie. The Committee is normally established for the duration of the Parliament, from the opening of its first session immediately following a general election to its dissolution.

In accordance with the Standing Orders of the Legislative Assembly and following the June 2014 election, Committee members were appointed on July 16, 2014. The Chair and Vice-chair were elected on October 22, 2014 at the Committee's first meeting. Membership is as follows:

Ernie Hardeman, Chair, Progressive Conservative
Lisa MacLeod, Vice-chair, Progressive
Conservative
Han Dong, Liberal
John Fraser, Liberal
Percy Hatfield, New Democrat
Harinder Malhi, Liberal
Julia Munro, Progressive Conservative
Arthur Potts, Liberal
Lou Rinaldi, Liberal

Auditor General's Advisory Role with the Committee

In accordance with section 16 of the Auditor General Act, at the request of the Committee the Auditor General, often accompanied by senior staff, attends Committee meetings to assist with its reviews and hearings relating to our Annual Report, Ontario's Public Accounts and any special reports issued by our Office.

Committee Procedures and Operations

The Committee may meet weekly when the Legislative Assembly is sitting, and, with the approval of the House, at any other time of its choosing. All meetings are open to the public except for those dealing with the Committee's agenda and the preparation of its reports. All public Committee proceedings are recorded in Hansard, the official verbatim report of debates, speeches and other Legislative Assembly proceedings.

The Committee identifies matters of interest from our Annual Report and our special reports and conducts hearings on them. It typically reviews reports from the value-for-money chapter of our Annual Report. Normally, each of the three political parties annually selects three audits or other sections from our Annual Report for Committee review.

At each hearing, the Auditor General, senior staff from her Office and a Research Officer from the Legislative Research Service brief the Committee on the applicable section from our Report. A briefing package is prepared by the Research Officer that includes the responses of the relevant ministry, Crown agency or broader-public-sector organization that was the subject of the audit or review. The Committee typically requests senior officials from the auditee(s) to appear at the hearings and respond to the Committee's questions. Because our Annual Report deals with operational, administrative and financial rather than policy matters, ministers are rarely asked to attend. Once the Committee's hearings are completed, the Research Officer prepares a draft report pursuant to the Committee's instructions. The Committee reports on its conclusions and makes recommendations to the Legislative Assembly.

The Clerk of the Committee annually also requests those auditees that were not selected for hearings to provide the Committee with an update of the actions taken to address our recommendations and other concerns raised in our reports.

Meetings Held

The Committee met 26 times between October 22, 2014 and October 31, 2015. Topics addressed at these meetings included violence against women, human resources management at Ontario Power Generation Inc. and at the Ministry of Health and Long-Term Care, regulatory oversight of pension plans and financial services, alternative financing and procurement, university undergraduate teaching quality, the smart metering initiative, cancer screening and the Infrastructure Ontario Loans Program. Many of these meetings included hearings in which government and broader-public-sector witnesses were called to testify before the Committee and respond to questions regarding observations contained in our reports. Other meetings were spent dealing with Committee business, writing the Committee's reports, or hearing briefings from the Auditor General.

Reports of the Committee

The Committee issues reports and letters on its work for tabling in the Legislative Assembly. These reports and letters summarize the information gathered by the Committee during its meetings and include the Committee's comments and recommendations. Once tabled, all committee reports and letters are publicly available through the Clerk of the Committee or online at **www.ontla.on.ca**.

Committee reports typically include recommendations and a request that management of the ministry, agency or broader-public-sector organization provide the Committee Clerk with responses within a stipulated time frame.

The Committee has issued seven reports since our last report on its activities. The Committee had completed the *Ornge Air Ambulance and Related Services: Summary Report* in May 2014, but the report was not tabled before the dissolution of the House for the June 2014 election. On October 22, 2014, the new Committee that was appointed after the election passed a motion to table the report in the Legislative Assembly, and it was duly tabled on October 30, 2014. The Committee has to date also tabled six 2015 reports, as follows:

- March 26: Violence Against Women
- May 12: Ontario Power Generation Human Resources
- May 28: Health Human Resources
- June 2: Financial Services Commission of Ontario—Pension Plan and Financial Service Regulatory Oversight
- June 2: Infrastructure Ontario—Alternative Financing and Procurement
- June 3: University Undergraduate Teaching Quality

The first three of these reports covered value-for-money audits from our *2013 Annual Report*. Our own follow-ups on the recommendations we made in 2013 appear in Chapter 4 of this Annual Report. In this chapter, in the following three subsections, we follow up on the recommendations the Committee made in their March 26, 2015, report on Violence Against Women, their May 12, 2015, report on Ontario Power Generation Human Resources, and their May 28 report on Health Human Resources. In each section, you will find:

- the recommendations contained in the Committee's report;
- the auditee's responses to the Committee's recommendations; and
- a table summarizing the status of each action from the Committee's recommendations (e.g., fully implemented, in the process of being implemented, etc.).

Follow-up on the Committee's Work on Violence Against Women

The Committee held a public hearing on our 2013 Violence Against Women audit in November 2014. The Committee tabled a report in the Legislature resulting from this hearing in March 2015. The full report can be found at **http://www.ontla.on.ca/committee-proceedings/committee-reports/files_html/41_1_PA_ViolenceAgainstWomen_26032015_en.htm**.

The Committee made nine recommendations and asked the Ontario Women's Directorate (Directorate) and the Ministry of Community and Social Services (Ministry) to report back by the end of July 2015. The Directorate and the Ministry formally responded to the Committee on July 23, 2015 and July 24, 2015, respectively. A number of issues raised by the Committee were similar to our audit observations in 2013. The status of the Committee's recommendations is shown in **Figure 1**.

Figure 2 shows the recommendations and the responses from the Ministry and the Directorate to each.

Figure 1: Status of Actions Recommended in Committee's Report on Violence Against Women

Prepared by the Office of the Auditor General of Ontario

	# of Actions Recommended	Status of Actions Recommended			
		Fully Implemented*	**In Process of Being Implemented**	**Little or No Progress**	**Will Not Be Implemented**
Recommendation 1	2		2		
Recommendation 2	1		1		
Recommendation 3	2		2		
Recommendation 4	1		1		
Recommendation 5	3	1		2	
Recommendation 6	1		1		
Recommendation 7	2	1		1	
Recommendation 8	1			1	
Recommendation 9	1		1		
Total	**14**	**2**	**8**	**4**	**0**
%	**100**	**14**	**57**	**29**	**0**

* Some recommendations required the Ministry and the Directorate to provide information to the Committee. The cases in which the Ministry and the Directorate provided the information as requested we have counted as "fully implemented."

Figure 2: Committee Recommendations and Responses from the Ministry and the Directorate

Prepared by the Office of the Auditor General of Ontario

Committee Recommendation	Ministry/Directorate Response
Recommendation 1 The Directorate work with relevant ministries to ensure that • there are measurable goals or targets attached to the commitments made within the province's Domestic Violence Action Plan and Sexual Violence Action Plan; and that **Status: In the process of being implemented by early 2016/17.** • progress on meeting these commitments is assessed and publicly reported every two years. **Status: In the process of being implemented. The frequency of public reporting will be determined following the release of the March 2016 report.**	The Directorate stated that since the Domestic Violence Action Plan concluded in 2008, it would not provide further progress reports. The government launched a new Sexual Violence and Harassment Action Plan in March 2015 that built on the efforts of the previous Sexual Violence Action Plan. The Directorate indicated that it was working on identifying short-term and long-term outcomes and was expecting to track progress and measure results on a quarterly basis. A public report on progress and results under the new Action Plan is to be released in March 2016. The Action Plan states that Ontarians will get a progress update on the plan's first year anniversary. The timing of further public reporting will be confirmed following the release of the March 2016 public report.
Recommendation 2 The Directorate evaluate the reach and impact of provincial violence against women public awareness and education programs in diverse populations including, but not limited to, aboriginal communities, newcomers, and immigrants; as well as programs addressing violence against women in the workplace and in postsecondary education. **Status: In the process of being implemented. The Directorate did not set an implementation date.**	The Directorate conducted a benchmark/baseline survey in March 2015 to measure Ontarian's experiences and opinions relating to sexual violence and harassment. It also collected performance measures used in public education campaigns as per grant recipients' legal agreements. The Directorate planned to use these metrics to evaluate "reach"–for example, the number of website views, the number of participants and the number of resources distributed. In terms of the impact of the programs, the Directorate planned to collect results from baseline surveys for all funded community-based public education campaigns and planned to work with the funded groups to conduct a program evaluation. It did not set due dates for program evaluations.

Committee Recommendation	Ministry/Directorate Response
Recommendation 3 The Ministry • conduct ongoing analysis of service costs and gaps in services, and **Status: In the process of being implemented by March 2016.** • ensure that the appropriate data is collected to enable assessment of the level and quality of service provided by agencies, including any regional disparities. **Status: In the process of being implemented by March 2016.**	The Ministry completed an analysis of financial and service level data and developed a plan to conduct cost analyses on a recurring basis starting in 2015/16. The Ministry expected that these analyses would help it get an understanding of variability in costs associated with delivering violence-against-women services and gaps in service across the province. The Ministry was also developing a business intelligence dashboard (i.e., scorecard) that will allow for data analysis and comparisons within and across agencies, programs, and regions, in order to identify trends and monitor key program metrics. The implementation is to be a phased roll-out, with complete implementation expected by March 2016. In 2012/13, the Ministry made changes to the type of data that transfer-payment agencies were required to submit for monitoring purposes. In 2013/14, the Ministry implemented standardized expenditure categories. In 2014/15, the Ministry revised the definition of some types of data required to be submitted to improve clarity and interpretation. The Ministry expected these actions to allow for better comparison of costs and services.
Recommendation 4 The Ministry develop a process to ensure shelters' compliance with quality standards to initiate once the standards are implemented. **Status: In the process of being implemented by 2016/17.**	The Ministry developed shelter standards based on consultation and engagement with the sector, and inter-jurisdictional research in various areas, and launched them in September 2015. Full implementation is expected by June 2016. The Ministry will require a status update and operational plan from agencies to monitor implementation. The Ministry recognized the need to strengthen its monitoring of agencies' performance against standards and take appropriate action. The Ministry has started work on an outcome-based monitoring and oversight initiative to enhance system accountability and service delivery of VAW agencies. This work will continue through 2015/16 and into the next year.
Recommendation 5 The Ministry work with agencies to develop a process for tracking • the reasons that individual women are not admitted to emergency shelters; **Status: Fully implemented.** • whether women experiencing violence who are referred elsewhere do receive the services and support to which they have been referred; and **Status: Little or no progress.** • how long women who are referred elsewhere wait to receive appropriate services. **Status: Little or no progress.**	In the 2012/13 fiscal year, the Ministry began collecting information on the number of women who were referred elsewhere due to a shelter being at capacity, were referred elsewhere to receive more appropriate services, and were waitlisted for services. The Ministry found limitations with the data it was collecting. Specifically, the data did not provide the Ministry with a unique count of women waiting for services, the length of time women waited for service, and whether a woman referred elsewhere for services actually received services. The Ministry expected to conduct consultations with agencies by the end of December 2015 to assess the feasibility of a pilot to collect data on whether women referred elsewhere actually receive services. If it is determined that a pilot is feasible, the Ministry expects to implement a data collection plan early in the 2017/18 fiscal year. The Ministry's client satisfaction survey asks women who are receiving services from a particular agency to indicate how long they waited to receive services from that agency, by ticking off boxes ranging from less than one week to more than five months. The Ministry's survey does not adequately address the Committee's recommendation for women who were referred elsewhere for service.
Recommendation 6 The Ministry explore new approaches to examining whether programs have increased women's safety, well-being, and sense of empowerment, as well as assessing whether there have been improvements in the accessibility and responsiveness of violence against women services. **Status: In the process of being implemented by 2016/17.**	In April 2015, the Ministry requested agencies to submit evaluation reports conducted in 2013/14 and 2014/15 for six programs. It expected to have this information analyzed by December 2015. Based on the results, the Ministry expected to develop a standardized monitoring and reporting approach for collecting outcome data for the evaluation of programs. The Ministry is in the process of developing a performance measurement framework for programs, as well as targets for all performance measures, by the end of March 2016, which the Ministry expects will also inform the approach for how to collect data to assess program outcomes. Regional offices will be expected to act on the findings of the analysis beginning in early 2016/17.

Committee Recommendation	Ministry/Directorate Response
Recommendation 7 The Ministry should • use audited financial statements submitted by agencies to review information on total revenue including revenue from donations and fundraising, in order to assess the impact of non-government revenue on the operation of shelters; and **Status: Fully implemented.** • work collaboratively with agencies to help them share best practices in fundraising. **Status: Little or no progress.**	The Ministry completed a review of a sample of 2012/13 audited financial statements, including the amount of fundraising and donation revenue. The review revealed that agencies receive fundraising and donation revenue to support service delivery to varying degrees, ranging from less than 1% to 25%. The Ministry stated that it encourages transfer-payment agencies to share best practices in fundraising amongst themselves, and will continue to work through its regional offices to engage with local planning tables and encourage collaboration within the sector.
Recommendation 8 The Ministry implement a plan for ensuring that safety and security deficiencies, as identified in the Ministry's 2009 Building Condition Assessment and its upcoming assessment update, are addressed in order of priority. **Status: Little or no progress.**	According to the Ministry, since transfer payment agencies are independently run organizations, they are responsible for maintaining their sites. The Ministry has signed a contract with a vendor to complete Building Condition Assessments of all transfer payment agency sites over the next five years, including VAW sites. Agencies can use this information to support their request for capital funding from the government. Once assessments are completed, the Ministry, in consultation with the sector, expects to analyze Building Condition Assessment data and program information to prioritize physical safety, fire code and security work, as part of broader VAW program needs.
Recommendation 9 The Ministry make progress on developing performance measures for the co-ordination of services, as well as targets for both new and existing performance measures, and establish timelines for regularly reporting results against all performance measures for violence against women programs and services. **Status: In the process of being implemented by the 2016/17 fiscal year.**	The Ministry identified an outcome for enhancing the co-ordination of services (that is, ensuring that women receive services that are accessible and responsive to their needs). The Ministry expected that the implementation of the new reporting standards in 2012/13, the results of the analysis of financial and service data for 2012/13 and 2013/14, and the results of the revised client satisfaction surveys would inform the development of targets for all performance measures by March 2016. The Ministry expected to implement a regular reporting cycle for all performance measures starting in the 2016/17 fiscal year.

Follow-up on the Committee's Work on Ontario Power Generation Human Resources

The Committee held a public hearing on our 2013 Ontario Power Generation (OPG) Human Resources audit in November 2014. It tabled a report in the Legislature resulting from this hearing in May 2015. The full report can be found at **http://www.ontla.on.ca/committee-proceedings/committee-reports/files_html/ONTARIO%20POWER%20GENERATION%20HUMAN%20RESOURCES%20-%20FINAL%20REPORT.htm.**

The Committee made eight recommendations and asked the OPG to report back by the end of August 2015. The OPG formally responded to the Committee on August 6, 2015. A number of issues raised by the Committee were similar to our observations. The status of the Committee's recommendations is shown in **Figure 3**.

Figure 4 shows the recommendations and OPG's responses to each.

Figure 3: Actions Recommended and Their Status

Prepared by the Office of the Auditor General of Ontario

	# of Actions Recommended	Status of Actions Recommended			
		Fully Implemented*	In Process of Being Implemented	Little or No Progress	Will Not Be Implemented
Recommendation 1	2	2			
Recommendation 2	3	3			
Recommendation 3	5	4	1		
Recommendation 4	1	1			
Recommendation 5	1		1		
Recommendation 6	1	1			
Recommendation 7	1	1			
Recommendation 8	3	3			
Total	**17**	**15**	**2**	**0**	**0**
%	**100**	**88**	**11**	**0**	**0**

* Some recommendations required the OPG to provide information to the Committee. The cases in which the OPG provided the information as requested we have counted as "fully implemented."

Figure 4: Committee Recommendations and OPG Responses

Prepared by the Office of the Auditor General of Ontario

Committee Recommendation	OPG Response
Recommendation 1 Ontario Power Generation shall report back to the Standing Committee on Public Accounts on its most recent benchmarking results for staff at the OPG's nuclear facilities. These results must: • identify the areas that are either above, below, or equal to the benchmark according to the selected areas identified in Figure 5 of the Auditor's 2013 Annual Report (p. 160); and **Status: Information has been provided.** • include the rationale for any deviation from the benchmark and, if applicable, an expected date of return to balance. **Status: Information has been provided.**	In 2014, OPG engaged a consultant to conduct a nuclear benchmarking study. The results of the study indicate that the percentage of overstaff has decreased from 8% in 2013 to 4% in 2014. According to OPG, the overall benchmark gap will be eliminated by 2017. OPG informed the Committee that any outstanding imbalances are to be addressed through attrition and/or future organizational changes and targets to minimize the staffing imbalance have been already incorporated in its Business Plan 2015 – 2017. The Committee was provided with the table identifying the areas that are either above, below, or equal to the benchmark according to the selected area identified in the 2013 Auditor General's Annual Report and the rationale for any deviation from the benchmark.
Recommendation 2 Ontario Power Generation shall report back to the Standing Committee on Public Accounts details of its revised Annual Incentive Plan. This response must: • include the criteria used to assess performance; **Status: Information has been provided.** • highlight areas of the Plan that are either new or have been revised from the old Plan; and **Status: Information has been provided.** • provide details concerning expected outcomes resulting from these revisions. **Status: Information has been provided.**	OPG has revised its incentive process to make it more effective. The new procedure requires management employees to enter their performance objectives annually in the Performance Planning and Review system so they can be used as criteria to assess staff performance. The performance objectives are required to be more specific, measurable, achievable, realistic and time-bound. Overall performance of the OPG as a company is measured using the criteria established in the Corporate Balanced Scorecard. A copy of the 2014 scorecard and the results have been provided to the Committee. As part of the change, OPG eliminated the use of fleet scorecard, which was used to measure each business segment in the past. Performance is now measured against the overall OPG Corporate Scorecard and individual performance objectives. In 2014, OPG implemented a calibration process for management employee ratings to ensure performance ratings are relative to job performance across the organization and that scores are broadly distributed. OPG noted that the new changes to the incentive process are expected to increase the link between performance and rewards.

Committee Recommendation	OPG Response
Recommendation 3 Ontario Power Generation shall report back to the Standing Committee on Public Accounts an outline of its plan to reduce its pension deficit. This outline must: • include the most recent figures for its pension deficit; **Status: Information has been provided.** • include details about the long-term impact that its Business Transformation plan has on its pension deficit; **Status: Information has been provided.** • provide details on the feasibility of implementing reforms to its pension contribution caps of executives and senior management; **Status: Information has been provided.** • Include the key assumptions used; and **Status: Information has been provided.** • provide any actuarial assurances—once current collective bargaining processes are completed—that the OPG has obtained for its plan and assumptions. **Status: In the process of being implemented by January 2017.**	The Committee was provided with the most recent Funding Valuation Report, which has details on the financial position of OPG's pension plan and key assumptions used to calculate the financial position. According to the Valuation report, OPG's pension deficit is about $1.1 billion as at January 1, 2014. However, the solvency ratio (a ratio used to measure the market value of pension asset to pension liability) has improved from 0.95 in 2011 to 0.99 in 2014. OPG noted that the Business Transformation (BT) initiative has helped to create a significantly more streamlined organization that utilizes resources more efficiently. The BT initiative has enabled OPG to reduce the number of employees from ongoing operations. The lower headcount reduces the current service cost of the pension plan, which reduces the total pension liabilities and funding requirements over the long run. In an effort to reduce OPG's pension cost, OPG reformed its management group's pension plan. According to the reformed plan, management staff has to contribute more and wait longer to retire. A 1% increase in pension contribution was phased-in for new management staff starting in 2014. The pension amendments regarding the management group have been filed with the Canada Revenue Agency (CRA) and Financial Services Commission of Ontario (FSCO). The CRA filing also included the waiver application to remove the cap on employee contributions. All documents relating to the amendments and waiver application have been filed with the regulators. OPG expects to receive approval before the end of 2015. With respect to unionized employees, OPG has negotiated with the Power Workers' Union (PWU), which represents a majority of OPG's workforce, to increase its pension contribution. Subject to a successful Initial Public Offering of Hydro One, PWU pension contributions will increase by 1% in 2015 and reach 2.75% by 2017. PWU staff will also move from Rule of 82 to Rule of 85, which means PWU employees will have to wait longer to retire. The negotiation process with the Society of Energy Professionals, one of the unions that represent OPG employees, is expected to commence in the fourth quarter of 2015. OPG is to provide the actuarial assurances to the PAC once the collective bargaining process is completed with both unions. The next Funding Valuation Report will be issued in January 2017.
Recommendation 4 Ontario Power Generation shall report back to the Standing Committee on Public Accounts on its plan going forward for its policy on rehiring former employees as temporary or contract staff. This plan must include details on how its succession plans are affected by this policy. **Status: Information has been provided.**	OPG has revised its policy on rehiring former employees as temporary or contract staff. According to the new policy, senior management approval is required to rehire a former employee. Retired employees have to wait a minimum of one year before they can be rehired for work, with the maximum contract length of one year. OPG noted that exceptions may be made to support Darlington Refurbishment and to accommodate licensed employees working in the Learning and Development area because of the limited availability of highly skilled workers. To minimize the need to rehire retired employees and to further improve succession planning, OPG implemented a corporate-wide succession planning model for management. Management succession plans must be updated semi-annually and presented to the Board in May and November of each year. With respect to succession planning, the OPG-wide program called Accelerate was implemented to identify and develop high-potential employees. OPG informed the Committee that there were about 37 high potential employees in the program. In addition, Knowledge Management toolkits are available online to assist the managers.

Committee Recommendation	OPG Response
Recommendation 5 Ontario Power Generation shall report back to the Standing Committee on Public Accounts on the results of its IT outsourcing agreement put out to competitive bidding, once agreement is finalized. **Status: In the process of being implemented by December 2015.**	OPG put out a request for proposal in May 2014. Based on its evaluation, the incumbent vendor was selected to manage its IT services as of January 2016. The results of the agreement are to be provided to the Committee once the agreement is finalized.
Recommendation 6 Ontario Power Generation shall report back to the Standing Committee on Public Accounts on the results of its plan to reduce overtime costs and the financial impact of this plan. **Status: Information has been provided.**	OPG enhanced its internal controls to ensure overtime hours and costs are minimized and monitored. According to enhanced controls, line managers are accountable for retaining pre-approval records and for taking actions to limit excessive overtime. To help managers identify employees who exceed their approved limits, the Finance Department is required to prepare weekly overtime reports by employee. The senior management is also responsible for reviewing the variance against the approved overtime budget. As a result of these enhanced controls, OPG was able to reduce overtime costs by 14%, from $148 million in 2012 to $127.5 million in 2014.
Recommendation 7 Ontario Power Generation shall report back to the Standing Committee on Public Accounts on details of its sick leave plan applicable to staff that joined the OPG prior to 2001. **Status: Information has been provided.**	The Committee was provided with the details of OPG's sick leave plan applicable to staff that joined the OPG prior to 2001.
Recommendation 8 Ontario Power Generation shall report back to the Standing Committee on Public Accounts on the status of its "enhanced sick leave management" process. This response must: • provide details on an expected implementation date; **Status: Information has been provided.** • include goals for the enhanced sick leave management process in terms of metrics and cost savings; **Status: Information has been provided.** • include a training plan for managers about the new system. **Status: Information has been provided.**	The OPG provided the Committee with the enhanced sick leave management plan. According to the plan, supervisors are responsible for speaking with the employees who do not meet attendance expectations and completing written documentation of the discussion. Quarterly emails will be sent out to supervisors identifying employees who exceed the minimum sick leave threshold. The new program is to be implemented in the fourth quarter of 2015. OPG anticipates a 20% reduction in the use of sick leave in the corporation as a result of the new program. The value of the recovered hours of productivity is estimated to be approximately $8 million. With respect to training, OPG noted that a specific knowledge and skills training for supervisors is not required. However, a web-based presentation will be available to clarify expectations and communicate that support is available to supervisors to manage the new program.

Follow-up on the Work of the Standing Committee on Public Accounts on Health Human Resources

The Standing Committee on Public Accounts (Committee) held a public hearing on our 2013 Health Human Resources audit in December 2014. It tabled a report in the Legislature resulting from this hearing in May 2015. The full report can be found at **http://www.ontla.on.ca/committee-proceedings/committee-reports/files_html/HEALTH%20HUMAN%20RESOURCES%20S%203%2002%20AUDITOR%20GENERALS%20ANNUAL%20REPORT%20FINAL%20REPORT.htm**.

The Committee made seven recommendations and asked the Ministry of Health and Long-Term Care (Ministry) to report back by the end of September 2015. The Ministry formally responded to the Committee on September 21, 2015. A number of issues raised by the Committee were similar to our observations. The status of the Committee's recommendations is shown in **Figure 5**.

Figure 6 shows the recommendations and the Ministry's responses to each.

Figure 5: Actions Recommended and Their Status

Prepared by the Office of the Auditor General of Ontario

	# of Actions Recommended	Status of Actions Recommended			
		Fully Implemented*	In Process of Being Implemented	Little or No Progress	Will Not Be Implemented
Recommendation 1	3	2	1		
Recommendation 2	1		1		
Recommendation 3	1		1		
Recommendation 4	3		3		
Recommendation 5	4		4		
Recommendation 6	1		1		
Recommendation 7	1		1		
Total	**14**	**2**	**12**	**0**	**0**
%	**100**	**14**	**86**	**0**	**0**

* Some recommendations required the Ministry of Health and Long-Term Care to provide information to the Committee. The cases in which the Ministry provided the information as requested we have counted as "fully implemented."

Figure 6: Committee Recommendations and Ministry Responses

Prepared by the Office of the Auditor General of Ontario

Committee Recommendation	Ministry Response
Recommendation 1 The Ministry of Health and Long-Term Care a) identify, by region, which non-emergency procedures have waitlists; **Status: Information has been provided.** b) evaluate whether wait times for these procedures in Ontario are reasonable compared to other provinces; **Status: Information has been provided.** c) improve planning for, and implementation of, the optimal number, mix, and distribution of specialists. **Status: In the process of being implemented by December 2016.**	a) Wait times for over 190 different surgical and diagnostic procedures are reported on a website called www.ontariowaittimes.com. The information can be summarized by health-care facility and by community. The Ministry provided 2014/15 wait time data for five selected surgical non-emergency procedures (cataract surgery, knee replacement, breast cancer surgery, paediatric strabismus, and cornea transplant) by each of the 14 Local Health Integration Networks to the Committee. b) According to April to September 2014 wait times information for five "priority procedures" in Canada, published by the Canadian Institute for Health Information, Ontario was the second-highest performer (i.e., it had the lowest wait times) in one area (radiation therapy) among 10 provinces, the third-highest performer in three areas (hip replacement, knee replacement and hip fracture repairs), and ranked fifth in one area (cataract surgeries). c) To plan for and implement the optimal number, mix and distribution of specialists, the Ministry works with medical schools to plan the number, location and mix of specialty training positions according to evidence-based needs. It also works with provincial partners and Health Canada to align the postgraduate specialty training Canadians may pursue in the United States (with the intention of returning home to practice) with evidence-based needs. In 2014, the Ministry updated two of its three existing forecasting models to support improved planning in the province. Since 2013, the Ministry has also acted as Co-Chair on the Pan-Canadian Physician Resource Planning Task Force. This Task Force (comprised of representatives from federal, provincial and territorial governments, national stakeholders, medical educators and learner organizations) facilitates pan-Canadian physician human resources planning.

Committee Recommendation	Ministry Response
Recommendation 2 The results of the evaluations of initiatives intended to improve the supply and distribution of physicians in northern, remote, and rural communities be shared with the Public Accounts Committee as soon as they become available. **Status: In the process of being implemented by June 2018.**	The Ministry is currently conducting evaluations of two initiatives intended to improve the supply and distribution of physicians in northern, remote and rural communities. These include a five-year tracking study to evaluate the extent to which the Northern Ontario School of Medicine's undergraduate and postgraduate medical education programs improve the supply and distribution of physicians in Ontario's most northern and rural communities, and an evaluation to assess the effectiveness and impact of the Return of Services Program, which provides funding to support a physician's postgraduate medical training in exchange for a commitment to practise medicine in an eligible Ontario community for an agreed-upon period of time, usually five years. The Ministry expects the evaluations will be completed by March 2016, at which time the results will be provided to the Committee. The Ministry received the five-year tracking study report on the Northern Ontario School of Medicine in June 2015. The study focused mainly on undergraduate learners and residents in the family medicine program as no specialty programs had run an entire training cycle by the time this report was due to the Ministry. The results were positive—for example, of the family physicians who trained at the School as undergraduates or postgraduates (or both) and who completed training in 2013 or earlier, 16% had located their primary medical practice in rural Northern Ontario, 45% in urban Northern Ontario, and 21% in rural Ontario. To track the value of the School in its eight specialty residency programs, the Ministry has extended the tracking study for another three years.
Recommendation 3 The Ministry of Health and Long-Term Care implement measures to encourage and support recruitment of health care professionals to underserved communities where they are needed, while reducing use of the more expensive locum program. **Status: In the process of being implemented by December 2016.**	The Ministry and HealthForceOntario Marketing and Recruitment Agency (Agency) have implemented a range of recruitment and retention initiatives at the local, regional and provincial levels, and are exploring new initiatives to support improved access to health-care providers in underserved communities. Below are some examples of measures undertaken locally, regionally, and provincially: In the area of local measures, the Ministry and the Agency have engaged hospitals, primary care teams, municipalities and other local partners to support developing health human resources plans to quantify needs in the community and hospital setting and integrated recruitment plans to address physician staffing needs in both the community and hospital setting. As well, the Agency employs regional advisors to provide recruitment and retention advice and best practices to hospital and community recruitment, and a direct connection to graduating residents as part of the Agency's Practice Ontario Program. In the area of regional measures, the Ministry has engaged LHINs to support the development of regional service delivery plans to explore whether realignment of location of patient care delivery could optimize patient access and health human resources sustainability. In addition, the accountability of hospital and LHIN leadership around reliance on locum programs has been enhanced. In the area of provincial measures, medical schools are funded to develop programs to provide learners (clerks and residents) with practical experience outside of urban centres. As well, the Ministry and the Agency are exploring the feasibility of alternate arrangements in communities where locum activity cannot be displaced by recruitment to determine whether there are more cost-effective means of providing patient care. This could include regional networks of physicians, the creation of new Alternate Funding Agreements, increased use of telemedicine, and enhanced service from alternate care providers.

Committee Recommendation	Ministry's Response
Recommendation 4 The Ministry of Health and Long-Term Care a) evaluate the extent to which health care professionals continue to work in underserved communities after fulfilling their return-of-service obligation; **Status: In the process of being implemented by March 2016.** b) seek to improve retention rates so that health care professionals stay in underserved communities for the long term; **Status: In the process of being implemented by March 2016.** c) measure the success of return-of-service programs using long-term retention rates. **Status: In the process of being implemented by March 2016.**	An evaluation is underway to assess the Ministry's Return of Service program and the Northern and Rural Recruitment and Retention Initiative program. The primary focus will be the retention rate of physicians in underserviced areas; the secondary focus will look at factors that may impact why physicians remain or leave underserviced areas after fulfilling their return of service obligation. The evaluations involve three phases: • Phase one (completed): outline the sequence of inputs, activities, and outputs that are expected to improve outcomes. • Phase two (in process): analyze retention rates in communities over time. This will include a review of those who remained in underserviced communities for one year, three years, five years and seven years after completion of programs. The data will be used to establish a baseline for on-going assessment of retention rates. • Phase three (in process): survey physicians who have completed the programs and those in the programs to understand their experience and their expectations on staying in the underserved communities. The Ministry expects to complete the evaluation by March 2016.
Recommendation 5 The Ministry of Health and Long-Term Care a) evaluate the effectiveness of planned nursing employment initiatives in meeting program goals such as increasing full-time employment of nurses and meeting health care needs; **Status: In the process of being implemented by December 2016.** b) meet regularly with healthcare stakeholder organizations in the community and home-care sector to encourage their participation in the Nursing Graduate Guarantee program; **Status: In the process of being implemented by December 2016.** c) ensure the implementation of accountability and oversight mechanisms for nursing programs; **Status: In the process of being implemented by March 2016.** d) monitor the nurse practitioner-led clinics more closely to ensure that they are meeting program requirements, targets, and objectives. **Status: In the process of being implemented by March 2016.**	a) Since the Nursing Graduate Guarantee Program (Program) started in 2007/08, the Ministry has contracted with the Nursing Health Services Research Unit at McMaster University to conduct annual Program evaluations, focusing on process. In April 2013, an online management portal called the Nurses' Career Start Gateway was launched. This portal allows the Ministry to collect and analyze data on participation rates in the Program by nursing graduates and employers, as well as employment outcomes. With this information, the Ministry began assessing short-term employment outcomes for the 2013/14 program year in 2014/15. In addition, according to a five-year longitudinal study of the Program conducted by the Nursing Health Services Research Unit, "the [Program] policy initiative was effective in achieving full-time employment and retention of new graduate nurses in Ontario." Further, the Ministry noted that it will continue to refine its performance indicators, which will be used to inform decision-making. b) In 2014/15, the Ministry implemented a communications strategy to promote increased participation in the Program across health-care sectors, including the home and community care sector. The 2014/15 strategy targeted new graduate nurses, internationally educated nurses and health-care employers, and included the following: webinars, employer information sessions, focused outreach to employers in home care, community, and long-term care, and targeted social media campaigns. The Ministry is conducting a review of the Program through stakeholder consultations to develop policy recommendations for the effective and efficient use of allocated resources across health sectors, including the home and community care sector. c) The Ministry is reviewing its nursing programs to determine if performance measures are outcome-based and consistent with the objectives of the respective programs. In 2014/15, the Ministry developed a financial reporting tool to improve the accountability of funds provided under the Nursing Graduate Guarantee program. d) The Ministry required Nurse Practitioner-led Clinics (Clinics) to submit year-end reports that collect standardized data on areas such as access, collaboration, funding agreement compliance, governance practices, and service integration in the community beginning in 2014/15. The Ministry noted that it is working in 2015/16 to better track the number of patients served by the Clinics as well as the patients who report these Clinics as their main source of primary care.

Committee Recommendation	Ministry Response
Recommendation 6 The Ministry of Health and Long-Term Care commit to ensuring annual reviews of relevant financial statements and the recovery of unspent funds from Ministry-funded transfer payment organizations. **Status: In the process of being implemented by December 2015.**	The Ministry's goal is to have one year of outstanding budget reconciliations at any given time. The Ministry expects to complete outstanding health human resource reconciliations for the fiscal years 2012/13 and 2015/16 by December 31, 2015. The Ministry implemented a system to support its oversight of funded organizations. With this system, the Ministry can review and analyze financial and program reports. This will support the budget settlement process which includes the recovery of unspent funds. In addition, the Ministry has implemented processes that will ensure that financial reports submitted by funded recipients are analyzed and reviewed during the year to support timely in-year recovery of unspent funds through payment adjustments.
Recommendation 7 The Ministry of Health and Long-Term Care improve both short-term and long-term forecasting to better plan to meet Ontario's health human resources needs for physicians, nurses, and other health professionals, with a view to providing equitable access for all Ontarians. **Status: In the process of being implemented by December 2016.**	In the area of physicians, the Ministry has updated two forecasting models (the Assessing Inventories and Netflows Physician Supply Model and the Physician Utilization Model) in 2014 to support evidence-based health human resource planning in Ontario. The former projects the province's future physician supply by specialty, age and sex; the latter uses OHIP claims data with the physician supply projections to estimate future physician gaps/surpluses by specialty. As well, the Ministry is updating the Ontario Population Needs-Based Physician Simulation Model to compare the supply of physician services to the population's need for health services to quantify the physician requirement, if any. The Ministry has developed a schedule for updating all modelling tools on a regular basis and expects the next update to occur in May 2016. In the area of nursing, the Ministry developed a supply-side model for registered nurses and registered practical nurses. The model was vetted by internal stakeholders, technical experts and a limited number of external nursing stakeholders. However, the Ministry had not incorporated a demand and/or need component into this model. The Ministry is researching how demand/need components can be included into an expanded nursing model. Finally, the Ministry indicated that it is developing a dashboard that will include key health workforce indicators that can be used to monitor trends over time and support planning for all of Ontario's regulated health professions.

Canadian Council of Public Accounts Committees

The Canadian Council of Public Accounts Committees (CCPAC) consists of delegates from federal, provincial and territorial public accounts committees from across Canada. CCPAC holds a joint annual conference with the Canadian Council of Legislative Auditors to discuss issues of mutual interest.

The 36th annual conference was hosted by Manitoba in Winnipeg from August 23 to 25, 2015.

Chapter 8

The Office of the Auditor General of Ontario

The Office of the Auditor General of Ontario (Office) serves the Legislative Assembly and the citizens of Ontario by conducting value-for-money and financial audits and reviews, and reporting on them. In so doing, the Office helps the Legislative Assembly hold the government, its administrators and grant recipients accountable for how prudently they spend public funds, and for the value they obtain for the money spent on behalf of Ontario taxpayers.

The work of the Office is performed under the authority of the *Auditor General Act*. In addition, under the *Government Advertising Act, 2004*, the Auditor General is responsible for reviewing and deciding whether or not to approve certain types of proposed government advertising (see Chapter 6 for more details on the Office's advertising review function). Also, in a year that a regularly scheduled election is held, the Auditor General is required under the *Fiscal Transparency and Accountability Act, 2004* to review and deliver an opinion on the reasonableness of the government's pre-election report on its expectations for the financial performance of the province over the next three fiscal years.

All three acts can be found at **www.e-laws.gov.on.ca**.

General Overview

Value-for-money Audits in the Annual Report

About two-thirds of the Office's work relates to value-for-money auditing, which assesses how well a given "auditee" (the entity that we audit) manages and administers its programs or activities. Value-for-money audits delve into the auditee's underlying operations to assess the level of service being delivered to the public and the relative cost-effectiveness of the service. The Office has the authority to conduct value-for-money audits of the following entities:

- Ontario government ministries;
- Crown agencies;
- Crown-controlled corporations; and
- organizations in the broader public sector that receive government grants (for example, agencies that provide mental health services, children's aid societies, community colleges, hospitals, long-term-care homes, school boards and universities).

The *Auditor General Act* (Act) [in subclauses 12(2)(f)(iv) and (v)] identifies the criteria to be considered in a value-for-money audit:

- Money should be spent with due regard for economy.

- Money should be spent with due regard for efficiency.
- Appropriate procedures should be in place to measure and report on the effectiveness of programs.

The *Act* requires that the Auditor General report on any instances he or she may have observed where these three value for money criteria have not been met. More specific criteria that relate directly to the operations of the particular ministry, program or organization being audited are also developed for each value for money audit.

The *Act* also requires that the Auditor General report on instances where the following was observed:

- Accounts were not properly kept or public money was not fully accounted for.
- Essential records were not maintained or the rules and procedures applied were not sufficient to:
  - safeguard and control public property;
  - effectively check the assessment, collection and proper allocation of revenue; or
  - ensure that expenditures were made only as authorized.
- Money was expended for purposes other than the ones for which it was appropriated.

Assessing the extent to which the auditee complies with the requirement to protect against these risks is generally incorporated into both value for money audits and "attest" audits (discussed in a later section). Other compliance work that is also typically included in our value for money audits includes determining whether the auditee adheres to key provisions in legislation and the authorities that govern the auditee or the auditee's programs and activities.

Government programs and activities are the result of government policy decisions. Thus, our value for money audits focus on how well management is administering and executing government policy decisions. It is important to note, however, that in doing so we do not comment on the merits of government policy. Rather, it is the Legislative Assembly that holds the government accountable for policy matters by continually monitoring and challenging government policies through questions during legislative sessions and through reviews of legislation and expenditure estimates.

In planning, performing and reporting on our value for money work, we follow the relevant professional standards established by the Chartered Professional Accountants of Canada (formerly the Canadian Institute of Chartered Accountants). These standards require that we have processes for ensuring the quality, integrity and value of our work. Some of the processes we use are described in the following sections.

Selecting What to Audit

The Office audits major ministry programs and activities, organizations in the broader public sector and Crown controlled corporations. Audits are selected using a risk based approach. Since our mandate expanded in 2004 to allow us to examine organizations in the broader public sector, our audits have covered a wide range of topics in sectors such as health (hospitals, long term care homes, Community Care Access Centres and mental health service providers), education (school boards, universities and colleges), and social services (children's aid societies and social service agencies), as well as several large Crown controlled corporations.

In selecting what program, activity or organization to audit each year, we consider how great the risk is that an auditee is not meeting the three value for money criteria, which results in potential negative consequences for the public it serves. The factors we consider include the following:

- the impact of the program, activity or organization on the public;
- the total revenues or expenditures involved;
- the complexity and diversity of the auditee's operations;
- the results of previous audits and related follow-ups;

- recent significant changes in the auditee's operations;
- the benefits of conducting the audit compared to the costs; and
- the significance of the potential issues an audit might identify.

We also consider work that has been done by the auditee's internal auditors, and may rely on, or reference, that work in the conduct of our audit. Depending on what that work consists of, we may defer an audit or change our audit's scope to avoid duplication of effort. In cases where we do not diminish the scope of our audit, we still use and reference the results of internal audit work in our audit report.

Setting Audit Objectives, Audit Criteria and Assurance Levels

When we begin an audit, we set an objective for what the audit is to achieve. We then develop suitable audit criteria to evaluate the design and operating effectiveness of key systems, policies and procedures to address identified risks. Developing criteria involves extensive research on work done by recognized bodies of expertise; other organizations or jurisdictions delivering similar programs and services; management's own policies and procedures; applicable criteria applied in other audits; and applicable laws, regulations and other authorities. To further ensure their suitability, the criteria we develop are discussed with the auditee's senior management at the planning stage of the audit.

The next step is to design and conduct tests so that we can reach a conclusion regarding our audit objective and make relevant and meaningful observations and recommendations. Each audit report has a section titled "Audit Objective and Scope," in which the audit objective is stated and the scope of our work is explained.

We plan our work to be able to obtain and provide assurance at an "audit level"—the highest reasonable level of assurance that we can obtain using our regular audit procedures. Specifically, an audit level of assurance is obtained by interviewing management and analyzing information that management provides; examining and testing systems, procedures and transactions; confirming facts with independent sources; and, where necessary because we are examining a highly technical area, obtaining independent expert assistance and advice. We also use professional judgment in much of our work.

Standard audit procedures are designed to provide "a reasonable level of assurance" (rather than an "absolute level") that the audit will identify significant matters and material deviations. Certain factors make it difficult for audit tests to identify all deviations. For example, we may conclude that the auditee had a control system in place for a process or procedure that was working effectively to prevent a particular problem from occurring, but auditee management or staff might be able to circumvent such control systems, so we cannot guarantee that the problem will never arise.

With respect to the information that management provides, under the Act we are entitled to access all relevant information and records necessary to perform our duties.

The Office can access virtually all information contained in Cabinet submissions or decisions that we deem necessary to fulfill our responsibilities under the Act. However, out of respect for the principle of Cabinet privilege, we do not seek access to the deliberations of Cabinet.

Infrequently, the Office will perform a review rather than an audit. A review provides a moderate level of assurance, obtained primarily through inquiries and discussions with management; analyses of information provided by management; and only limited examination and testing of systems, procedures and transactions. We perform reviews when:

- it would be prohibitively expensive or unnecessary to provide a higher level of assurance; or
- other factors relating to the nature of the program or activity make it more appropriate to conduct a review instead of an audit.

Communicating with Management

To help ensure the factual accuracy of our observations and conclusions, staff from our Office communicate with the auditee's senior management throughout the value-for-money audit or review. Early in the process, our staff meet with management to discuss the objective, criteria and focus of our work in general terms. During the audit or review, our staff meet with management to update them on our progress and ensure open lines of communication. At the conclusion of on-site work, management is briefed on our preliminary results. A draft report is then prepared and discussed with the auditee's senior management, which provides written responses to our recommendations. These are discussed and incorporated into the draft report, which the Auditor General finalizes with the deputy minister or head of the agency, corporation or grant-recipient organization, after which the report is published in Chapter 3 of the Auditor General's Annual Report.

Special Reports

As required by the Act, the Office reports on its audits in an Annual Report to the Legislative Assembly. In addition, the Office may make a special report to the Legislative Assembly at any time, on any matter that, in the opinion of the Auditor General, should not be deferred until the Annual Report.

Two sections of the Act authorize the Auditor General to undertake additional special work. Under section 16, the Standing Committee on Public Accounts may resolve that the Auditor General must examine and report on any matter respecting the Public Accounts. Under section 17, the Legislative Assembly, the Standing Committee on Public Accounts or a minister of the Crown may request that the Auditor General undertake a special assignment. However, these special assignments are not to take precedence over the Auditor General's other duties, and the Auditor General can decline such an assignment requested by a minister if he or she believes that it conflicts with other duties.

In recent years when we have received a special request under section 16 or 17, our normal practice has been to obtain the requester's agreement that the special report will be tabled in the Legislature on completion and made public at that time. This year, the following special reports requested under section 17 by the Standing Committee on Public Accounts were tabled:

- an audit of the Education Sector Collective Agreements – September 1, 2012 to August 31, 2014 (tabled in November 2014);
- an audit of private security contracts for the 2015 Pan/Parapan American Games (tabled in November 2014);
- a review of the Ministry of Transportation's winter highway maintenance program (tabled in April 2015); and
- an audit of Community Care Access Centres, including examinations of compensation and of the cost-effectiveness of care protocols and home visits (tabled in September 2015).

In addition, under subsection 9(3) of the *Government Advertising Act, 2004*, we submitted a special report in May 2015 on the government's proposed amendments to that legislation.

Attest Audits

Attest audits are examinations of an auditee's financial statements. In such audits, the auditor expresses his or her opinion on whether the financial statements present information on the auditee's operations and financial position in a way that is fair and that complies with certain accounting policies (in most cases, with Canadian generally accepted accounting principles). As mentioned in the overview of value-for-money audits, compliance audit work is often incorporated into attest audit work. Specifically, we assess the controls for managing risks relating to improperly kept accounts; unaccounted-for public money; lack of recordkeeping; inadequate safeguarding of public property; deficient procedures for assessing, collecting and properly allocating revenue; unauthorized expenditures; and not spending money on what it was intended for.

The Auditees

Every year, we audit the financial statements of the province and the accounts of many agencies of the Crown. Specifically, the Act [in subsections 9(1), (2), and (3)] requires that:

- the Auditor General audit the accounts and records of the receipt and disbursement of public money forming part of the province's Consolidated Revenue Fund, whether held in trust or otherwise;
- the Auditor General audit the financial statements of those agencies of the Crown that are not audited by another auditor;
- public accounting firms appointed as auditors of certain agencies of the Crown perform their audits under the direction of the Auditor General and report their results to the Auditor General; and
- public accounting firms auditing Crown-controlled corporations deliver to the Auditor General a copy of the audited financial statements of the corporation and a copy of the accounting firm's report of its findings and recommendations to management (typically contained in a management letter).

Chapter 2 discusses this year's attest audit of the province's consolidated financial statements.

We do not typically discuss the results of attest audits of agencies and Crown-controlled corporations in this report. Agency legislation normally stipulates that the Auditor General's reporting responsibilities are to the agency's board and the minister(s) responsible for the agency. Our Office also provides copies of our independent auditor's reports and of the related agency financial statements to the deputy minister of the associated ministry, as well as to the Secretary of the Treasury Board.

We identify areas for improvement during the course of an attest audit of an agency and provide our recommendations to agency senior management in a draft report. We then discuss our recommendations with management and revise the report to reflect the results of our discussions. After the draft report is cleared and the agency's senior management has responded to it in writing, the auditor prepares a final report, which is discussed with the agency's audit committee (if one exists). We bring significant matters to the attention of the Legislature by including them in our Annual Report.

Part 1 of Exhibit 1 lists the agencies that were audited during the 2014/15 audit year. The Office contracts with public accounting firms to audit a number of these agencies on the Office's behalf. Part 2 of Exhibit 1 and Exhibit 2 list the agencies of the Crown and the Crown-controlled corporations, respectively, that were audited by public accounting firms during the 2014/15 audit year. Exhibit 3 lists significant organizations in the broader public sector whose accounts are also audited by public accounting firms and included in the province's consolidated financial statements.

Other Stipulations of the *Auditor General Act*

The *Auditor General Act* came about with the passage on November 22, 2004, of the *Audit Statute Law Amendment Act* (Amendment Act), which received Royal Assent on November 30, 2004. The purpose of the Amendment Act was to make certain changes to the *Audit Act* to enhance our ability to serve the Legislative Assembly. The most significant of these changes was the expansion of our Office's value-for-money audit mandate to organizations in the broader public sector that receive government grants.

Appointment of Auditor General

Under the *Auditor General Act* (Act), the Auditor General is appointed as an officer of the

Legislative Assembly by the Lieutenant Governor in Council—that is, the Lieutenant Governor appoints the Auditor General on the advice of the Executive Council (the Cabinet). The appointment is made "on the address of the Assembly," meaning that the appointee must be approved by the Legislative Assembly. The Act also requires that the Chair of the Standing Committee on Public Accounts—who, under the Standing Orders of the Legislative Assembly, is a member of the official opposition—be consulted before the appointment is made (for more information about the Standing Committee on Public Accounts, see Chapter 7).

Independence

The Auditor General and staff of the Office are independent of the government and its administration. This independence is an essential safeguard that enables the Office to fulfill its auditing and reporting responsibilities objectively and fairly.

The Auditor General is appointed to a 10-year, non-renewable term, and can be dismissed only for cause by the Legislative Assembly. Consequently, the Auditor General maintains an arm's-length distance from the government and the political parties in the Legislative Assembly and is thus free to fulfill the Office's legislated mandate without political pressure.

The Board of Internal Economy—an all-party legislative committee that is independent of the government's administrative process—reviews and approves the Office's budget, which is subsequently laid before the Legislative Assembly. As required by the Act, the Office's expenditures relating to the 2014/15 fiscal year have been audited by a firm of chartered professional accountants, and the audited financial statements of the Office have been submitted to the Board and subsequently must be tabled in the Legislative Assembly. The audited statements and related discussion of expenditures for the year are presented at the end of this chapter.

Confidentiality of Working Papers

In the course of our reporting activities, we prepare draft audit reports and findings reports that are considered an integral part of our audit working papers. Under section 19 of the Act, these working papers do not have to be laid before the Legislative Assembly or any of its committees. As well, our Office is exempt from the *Freedom of Information and Protection of Privacy Act* (FIPPA). This means that our draft reports and audit working papers, including all information obtained from an auditee during the course of an audit, are privileged, and cannot be accessed by anyone under FIPPA.

Code of Professional Conduct

The Office has a Code of Professional Conduct to ensure that staff maintain high professional standards and keep up a professional work environment. The Code is intended to be a general statement of philosophy, principles and rules regarding conduct for employees of the Office. Our employees have a duty to conduct themselves in a professional manner and to strive to achieve the highest standards of behaviour, competence and integrity in their work.

The Code explains why these expectations exist and further describes the Office's responsibilities to the Legislative Assembly, the public and our auditees. The Code also provides guidance on disclosure requirements and the steps to be taken to avoid conflict-of-interest situations. All employees are required to complete an annual conflict-of-interest declaration and undergo a police security check upon being hired and every five years thereafter.

Office Organization and Personnel

The Office is organized into portfolio teams, intended to align with related audit entities and to foster expertise in the various areas of audit activity. The portfolios, loosely based on the government's own ministry organization, are each headed by a Director, who oversees and is responsible for the audits within the assigned portfolio. Directors report to Assistant Auditors General. Reporting to the Directors and rounding out the teams are audit Managers and various other audit staff (see **Figure 1**).

The Auditor General, the Assistant Auditors General and the Chief Operating Officer make up the Office's Executive Committee. The Auditor General, the Assistant Auditors General, the Chief Operating Officer, the Directors, and the Managers of Human Resources and of Communications and Government Advertising make up the Office's Senior Management Committee.

Canadian Council of Legislative Auditors

This year, Manitoba hosted the 43rd annual meeting of the Canadian Council of Legislative Auditors (CCOLA) in Winnipeg from August 23 to 25, 2015. This annual gathering is held jointly with the annual conference of the Canadian Council of Public Accounts Committees. It brings together legislative auditors and members of the Standing Committees on Public Accounts from the federal government and the provinces and territories, and provides a very useful forum for sharing ideas and exchanging information.

International Visitors

As an acknowledged leader in value-for-money auditing, the Office frequently receives requests to meet with visitors and delegations from abroad to discuss the roles and responsibilities of the Office and to share our value-for-money and other audit experiences. During the period from October 1, 2014, to September 30, 2015, the Office hosted delegations from China, South Africa and Ethiopia, as well as visitors from Cameroon, Ghana, Tanzania and Vietnam.

Results Produced by the Office This Year

This was another successful year for the Office, particularly given the unprecedented amount of additional special work requested this year.

In total, while operating within our budget:

- we conducted 14 value-for-money audits;
- we conducted the majority of the audit work for, and released, four special reports under section 17; and
- we issued a special report on government advertising.

As mentioned in the earlier Attest Audits section, we are responsible for auditing the province's consolidated financial statements (further discussed in Chapter 2), as well as the statements of more than 40 Crown agencies. We met all of our key financial-statement audit deadlines while continuing to invest in training to ensure adherence to accounting and assurance standards and methodology for conducting our attest audits.

We successfully met our review responsibilities under the *Government Advertising Act, 2004*, as further discussed in Chapter 6.

The results produced by the Office this year would not have been possible without the hard work and dedication of our staff, as well as that of our agent auditors, contract staff and expert advisers.

Financial Accountability

The following discussion and our financial statements outline the Office's financial results for the fiscal year 2014/15. Our financial statements have

Figure 1: Office Organization, September 30, 2015

Auditor General

Bonnie Lysyk

Assistant Auditors General

Gus Chagani
Rudolph Chiu
Susan Klein

Communications and Government Advertising Review

Christine Pedias, Manager
Mariana Green
Shirley McGibbon
Tiina Randoja

Standards and Research

Rebecca Yosipovich, Manager

Operations

Mohammed Siddiqui, Chief Operating Officer

Human Resources and Finance
Cindy MacDonald, Manager, Human Resources
Li-Lian Koh, Manager, Finance

Payroll and Administration
Syed Zain Ali
Lauren Hanna
Sohani Myers
Louise Pellerin
Shanta Persaud
Christine Wu

Information Technology
Shams Ali
Peter Lee

Financial Statement Audit Portfolios and Staff*

Crown Agencies (1)

John McDowell, Director
Walter Allan, Manager
Tom Chatzidimos
Kandy Fletcher
Mary Romano

Crown Agencies (2)

Laura Bell, Director
Teresa Carello, Manager
Izabela Beben
Constantino De Sousa
Roger Munroe
Zachary Thomas
Cynthia Tso

Public Accounts

Bill Pelow, Director
Paul Amodeo, Manager
Georgegiana Tanudjaja, Manager
Audelyn Budihardjo
Loretta Cheung
Marcia DeSouza
Neil Ganatra
Benjamin Leung
Taylor Lew
Kundai Marume
Megan Sim

Value-for-money Audit Portfolios and Staff*

Education

Vanna Gotsis, Director
Wendy Cumbo, Manager
Fatima Ahmed
Kevin Aro
Sally Chang
Jennifer Lee
Kristy May

Health

Sandy Chan, Director
Celia Yeung, Manager
Denise Young, Manager
Dimitar Dimitrov
Vanessa Dupuis
Karen Liew
Gurinder Parmar
Oscar Rodriguez
Zhenya Stekovic
Jing Wang
Claire Whalen

Health and Energy

Gigi Yip, Director
Ariane Chan, Manager
Vivian Sin, Manager
Arujunan Balakrishnan
Mohak Malik
Pasha Sidhu
Alla Volodina
Janet Wan
Tiffany Yau

Infrastructure, Environment and Economic Development

Kim Cho, Director
Tino Bove, Manager
Veronica Ho, Manager
Anita Cheung
Mary Chu
Jesse Dufour
Ash Goel
Aaqib Shah
Alexander Truong

Justice, Regulatory and Information Technology

Vince Mazzone, Director
Naomi Herberg, Manager
Osman Qazi, Manager (IT)
Fraser Rogers, Manager
Shariq Saeed, Manager (IT)
Rashmeet Gill
Shuaib Mohammed
Wendy Ng
Alice Nowak
Brian Wanchuk
Robyn Wilson
Michael Yarmolinsky

Social Services and Tax Revenue

Nick Stavropoulos, Director
Bartosz Amerski, Manager
Emanuel Tsikritsis, Manager
Koreena Bordenca
Katrina Exaltacion
Evan Gravenor
Arie Lozinsky
Subran Premachandran
Shreya Shah
Ellen Tepelenas
Dora Ulisse

* Staff below manager level shift between portfolios to address seasonal financial statement audit workload pressures.

Note: The following people contributed to this Annual Report but left before September 30, 2015: Helen Chow, Jennifer Fung, Inna Greenberg, Tanmay Gupta, Kristy Ho, Zahra Jaffer, Michael Katsevman, Alfred Kiang, Margaret Lam, Ravind Nanubhai, Ruchir Patel, Linde Qiu and Thaksa Sethukavalan.

been prepared in accordance with public-sector accounting standards. In accordance with these standards, we have presented a breakdown of our expenses by the main activities our Office is responsible for: value-for-money and special audits, financial-statement audits, and the review of government advertising. This breakdown is provided in Note 9 to the financial statements and indicates that 69% of our time was used to perform value-for-money and special audits, a stated priority of the Standing Committee on Public Accounts, and 30% was devoted to completing the audits of the annual financial statements of the province and over 40 of its agencies. The remaining time was devoted to our statutory responsibilities under the *Government Advertising Act*.

Figure 2 provides a comparison of our approved budget and expenditures over the last five years. **Figure 3** presents the major components of our spending during the 2014/15 fiscal year and shows that over 69% (73% in 2013/14) related to salary and benefit costs for staff, while professional and other services, along with rent, constituted most of the remainder. These proportions have been relatively stable in recent years. Overall, our expenses increased by 3.9% (1.6% in 2013/14) from the previous year.

Our salaries budget was frozen for the last five years. As a result, we were unable to fully staff up and have faced challenges in hiring and retaining qualified professional staff in the competitive Toronto job market—our public-service salary ranges have simply not kept pace with compensation increases for such professionals in the private sector. In July 2015, the Board of Internal Economy approved our request for salary and benefits funding for the 2015/16 fiscal year, to bring our staffing to the approved complement of 117.

A more detailed discussion of the changes in our expenses and some of the challenges we face follows.

Salaries and Benefits

Our salary and benefit costs in 2014/15 were lower by 1.2% compared to the previous year. This decrease is mainly due to lower severance payments to retiring staff in 2014/15.

In 2014/15, our average staffing level decreased by three, to 98 people from 101 in the previous year, as shown in **Figure 4**. Most students who earned their professional accounting designation during the year remained with us. To be competitive, we must pay our newly qualified staff considerably more than they were paid as trainees, because salaries for qualified accountants rise fairly quickly in the private sector in the first five years following qualification.

Figure 2: Five-year Comparison of Spending (Accrual Basis) ($ 000)

Prepared by the Office of the Auditor General of Ontario

	2010/11	2011/12	2012/13	2013/14	2014/15
Approved budget	**16,224**	**16,224**	**16,224**	**16,427**	**16,520**
Actual expenses					
Salaries and benefits	11,228	11,039	11,390	11,342	11,201
Professional and other services	1,491	1,667	1,643	1,759	2,284
Rent	1,036	1,016	989	1,001	1,008
Travel and communications	337	303	309	276	336
Other	1,071	1,216	1,015	1,213	1,373
Total	**15,163**	**15,241**	**15,346**	**15,591**	**16,202**
Unused appropriations*	**1,222**	**997**	**1,000**	**679**	**160**

* These amounts are typically slightly different than the excess of appropriation over expenses as a result of non-cash expenses (such as amortization of capital assets, deferred lease inducements and employee future benefit accruals).

Figure 3: Spending by Major Expenditure Category, 2014/15

Prepared by the Office of the Auditor General of Ontario

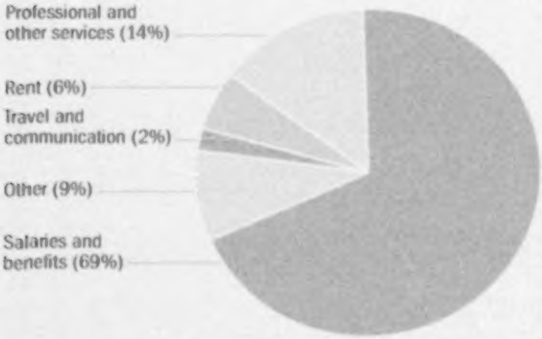
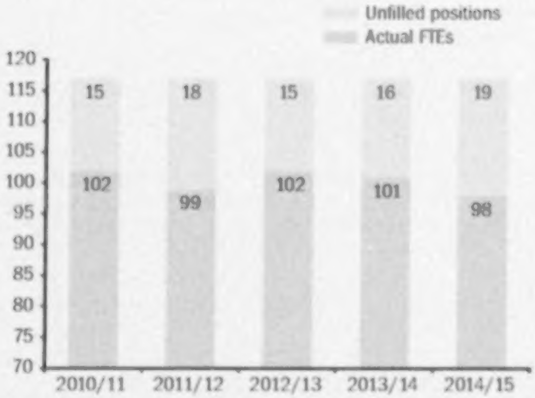


Figure 4: Staffing, 2010/11–2014/15

Prepared by the Office of the Auditor General of Ontario



Staff departures continue as the market for professional accountants has remained fairly robust despite economic uncertainties. Our hiring continues to be primarily at more junior levels, where our salaries and benefits are competitive. Our salaries quickly fall behind private- and broader-public-sector salary scales for more experienced professional accountants. This is one reason that, as **Figure 4** shows, we still have a number of unfilled positions. The growing complexity of our audits requires highly qualified, experienced staff as much as possible. The challenge of maintaining and enhancing our capacity to perform these audits will only increase as more of our most experienced staff retire over the next few years.

Under the Act, our salary levels must be comparable to the salary ranges of similar positions in the government. These ranges remain uncompetitive with the salaries that both the not-for-profit and the private sectors offer. According to a survey by the Chartered Professional Accountants of Canada (formerly the Canadian Institute of Chartered Accountants), published in 2013, average salaries for CPAs in government ($108,000) were 7% lower than those in the not-for-profit sector ($118,000) and, most importantly, 14% lower than those at professional service CPA firms ($134,000), which are our primary competition for professional accountants. The salaries of our highest-paid staff in the 2014 calendar year are disclosed in Note 7 to our financial statements.

Professional and Other Services

These services include both contract professionals and contract CPA firms, and represent our next most significant spending area, at almost 14% of total expenditures. These costs increased by 29.8% compared to last year, as we continue to use contract staff to cover for special assignments and for parental or unexpected leaves, as well as to help us manage peak workloads during the summer months.

Other costs, mainly relating to legal services, printing and translation costs for reports, and staff membership dues, have also increased.

We continue to rely on contract professionals to meet our legislated responsibilities, given more complex work and tight deadlines for finalizing the financial-statement audits of Crown agencies and the province.

Contract costs for CPA firms we work with remain higher because of the higher salaries they pay their staff and the additional hours required to implement ongoing changes to accounting and assurance standards. We continue to test the market for such services as contracts expire.

Rent

Our costs for accommodation increased slightly compared to the previous year, owing primarily to an increase in utility costs. However, our accommodation costs are still less than they were five years ago.

Travel and Communications

Our travel and communications costs increased by 22.2%. In general, we incur travel costs relative to the areas we audit, and communication costs relative to the number and length of special reports and the content of our Annual Report. This year, we printed four special reports and a longer Annual Report.

Other

Other costs include asset amortization, supplies and equipment maintenance, office improvements, training and statutory expenses. These expenses were 13% higher than last year, primarily due to special projects and an increase in the number of audits requiring expert advice and assistance.

Financial Statements

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL STATEMENTS

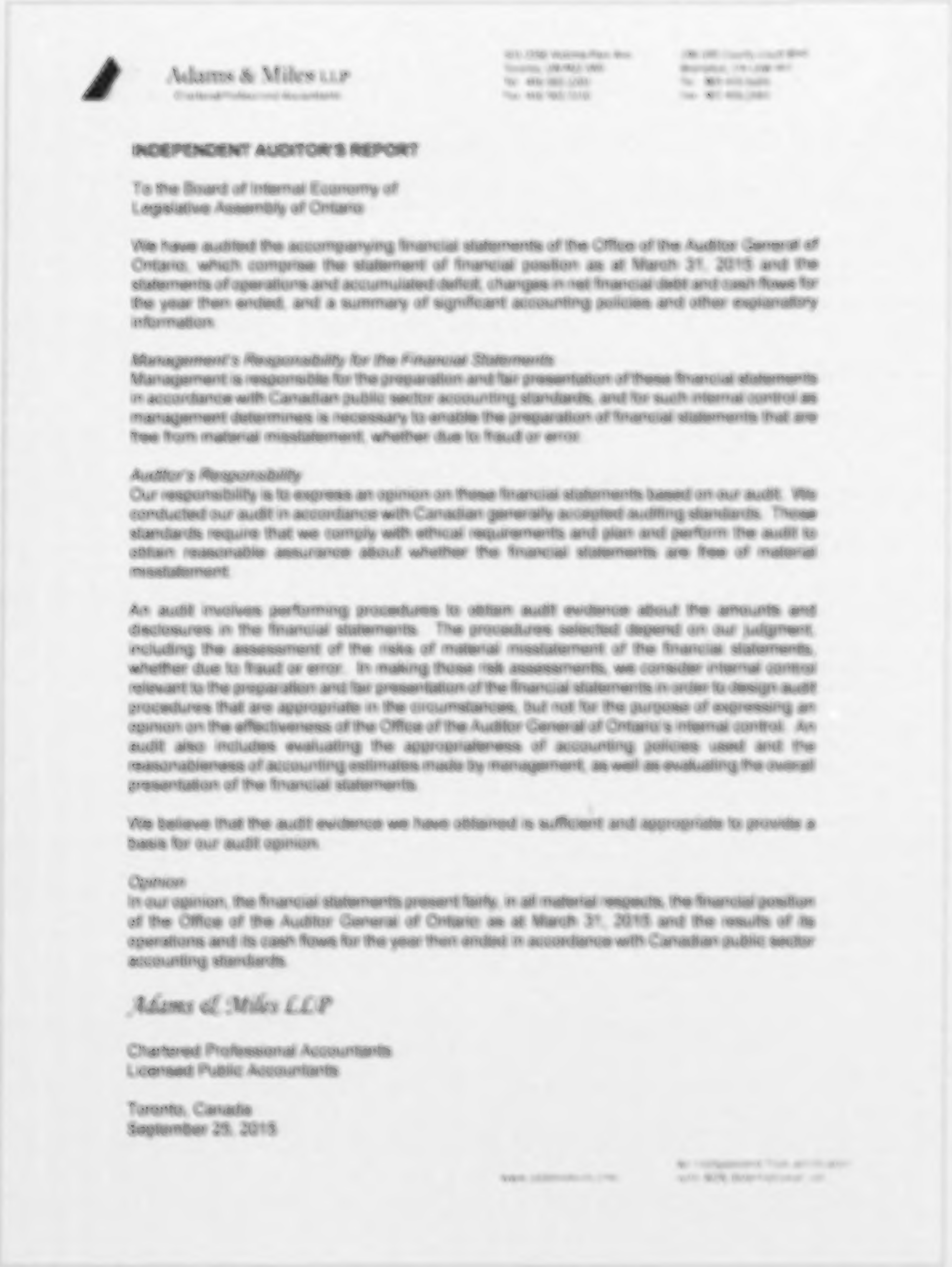
The accompanying financial statements of the Office of the Auditor General are the responsibility of management of the Office. Management has prepared the financial statements to comply with the *Auditor General Act* and with Canadian public sector accounting standards .

Management maintains a system of internal controls that provides reasonable assurance that transactions are appropriately authorized, assets are adequately safeguarded, appropriations are not exceeded, and the financial information contained in these financial statements is reliable and accurate.

The financial statements have been audited by the firm of Adams & Miles LLP, Chartered Professional Accountants. Their report to the Board of Internal Economy, stating the scope of their examination and opinion on the financial statements, appears on the following page.

Bonnie Lysyk, CPA, CA, LPA
Auditor General
September 25, 2015

Mohammed Siddiqui, CPA, CA
Chief Operating Officer
September 25, 2015



Adams & Miles LLP
Chartered Professional Accountants

INDEPENDENT AUDITOR'S REPORT

To the Board of Internal Economy of
Legislative Assembly of Ontario

We have audited the accompanying financial statements of the Office of the Auditor General of Ontario, which comprise the statement of financial position as at March 31, 2015 and the statements of operations and accumulated deficit, changes in net financial debt and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements
Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility
Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Office of the Auditor General of Ontario's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the financial statements present fairly, in all material respects, the financial position of the Office of the Auditor General of Ontario as at March 31, 2015 and the results of its operations and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Adams & Miles LLP

Chartered Professional Accountants
Licensed Public Accountants

Toronto, Canada
September 25, 2015

Office of the Auditor General of Ontario

Statement of Financial Position
As at March 31, 2015

	2015 $	2014 $
Financial assets		
Cash	144,227	406,337
Harmonized sales taxes recoverable	140,811	186,009
Due from Consolidated Revenue Fund	570,758	479,826
Lease inducement receivable (Note 10)	-	322,225
	855,796	1,394,397
Financial liabilities		
Accounts payable and accrued liabilities (Note 4)	1,792,269	2,257,023
Accrued employee benefits obligation (Note 5(B))	2,477,000	2,228,000
Deferred lease inducement (Note 10)	212,131	244,354
	4,481,400	4,729,377
Net financial debt	(3,625,604)	(3,334,980)
Non-financial assets		
Tangible capital assets (Note 3)	1,257,594	807,792
Accumulated deficit	(2,368,010)	(2,527,188)

Commitments (Note 6)
Measurement uncertainty (Note 2(F))

See accompanying notes to financial statements.

Approved by the Office of the Auditor General of Ontario:

Bonnie Lysyk, CPA, CA, LPA
Auditor General

Mohammed Siddiqui, CPA, CA
Chief Operating Officer

Office of the Auditor General of Ontario

Statement of Operations and Accumulated Deficit
For the Year Ended March 31, 2015

	2015 Budget (Note 12) $	2015 Actual $	2014 Actual $
Expenses			
Salaries and wages	9,755,400	9,246,085	9,110,028
Employee benefits (Note 5)	2,240,800	1,959,804	2,231,820
Professional and other services	1,808,200	2,283,806	1,758,845
Office rent	1,062,400	1,007,630	1,001,326
Amortization of capital assets	—	359,346	331,506
Travel and communication	418,800	336,863	275,010
Training and development	378,600	123,516	135,301
Supplies and equipment	377,500	223,679	226,240
Transfer payment: CCAF-FCVI Inc.	73,000	68,108	68,460
Statutory expenses: *Auditor General Act*	242,700	246,128	387,592
Government Advertising Act	30,000	3,388	18,875
Statutory services	130,000	346,882	50,038
Total expenses (Notes 8 and 9)	16,520,400	16,202,008	15,591,045
Revenue			
Consolidated Revenue Fund – Voted appropriations [Note 2(B)]	16,520,400	16,520,400	16,426,700
Excess of revenue over expenses		318,392	835,655
Less: unused appropriations [Note 11]		159,812	676,980
Net operations surplus		158,580	158,675
Accumulated deficit, beginning of year		(2,526,590)	(2,685,265)
Accumulated deficit, end of year		(2,368,010)	(2,526,590)

See accompanying notes to financial statements.

Office of the Auditor General of Ontario

Statement of Changes in Net Financial Debt
For the Year Ended March 31, 2013

	2013 $	2012 $
Net operations surplus	[illegible]	[illegible]
Purchase of tangible capital assets	[illegible]	[illegible]
Amortization of tangible capital assets	[illegible]	[illegible]
Increase in net financial debt	[illegible]	[illegible]
Net financial debt, beginning of year	[illegible]	[illegible]
Net financial debt, end of year	[illegible]	[illegible]

See accompanying notes to financial statements.

Office of the Auditor General of Ontario

Statement of Cash Flows
For the Year Ended March 31, 2015

	2015 $	2014 $
Operating transactions		
Net operations surplus	158,580	156,675
Amortization of tangible capital assets	359,346	331,506
Accrued employee benefits expense	(61,000)	85,000
	456,926	573,181
Changes in non-cash working capital		
Decrease (increase) in harmonized sales taxes recoverable	5,798	(34,921)
Increase in due from Consolidated Revenue Fund	(90,932)	(301,681)
Decrease in lease inducement receivable	322,225	-
Increase (decrease) in accounts payable and accrued salaries and benefits (Note 4)	(154,754)	373,196
Decrease in deferred lease inducement	(32,223)	(32,222)
	50,114	4,372
Cash provided by operating transactions	507,040	577,553
Capital transactions		
Purchase of tangible capital assets	(779,150)	(573,181)
(Decrease) increase in cash	(272,110)	4,372
Cash, beginning of year	416,337	411,965
Cash, end of year	144,227	416,337

See accompanying notes to financial statements.

Office of the Auditor General of Ontario

Notes to Financial Statements
For the Year Ended March 31, 2015

1. Nature of Operations

In accordance with the provisions of the *Auditor General Act* and various other statutes and authorities, the Auditor General, through the Office of the Auditor General of Ontario (the Office), conducts independent audits of government programs, of institutions in the broader public sector that receive government grants, and of the fairness of the financial statements of the Province and numerous agencies of the Crown. In doing so, the Office promotes accountability and value for money in government operations and in broader public sector organizations.

Additionally, under the *Government Advertising Act, 2004*, the Office is required to review specified types of advertising, printed matter or reviewable messages proposed by government offices to determine whether they meet the standards required by the Act.

Under both Acts, the Auditor General reports directly to the Legislative Assembly.

As required by the *Fiscal Transparency and Accountability Act, 2004*, in an election year the Office is also required to report on the reasonableness of a Pre-Election Report prepared by the Ministry of Finance.

2. Summary of Significant Accounting Policies

The financial statements have been prepared in accordance with Canadian public sector accounting standards. The significant accounting policies are as follows:

(A) ACCRUAL BASIS

These financial statements are accounted for on an accrual basis whereby expenses are recognized in the fiscal year that the events giving rise to the expense occur and resources are consumed.

(B) VOTED APPROPRIATIONS

The Office is funded through annual voted appropriations from the Province of Ontario. Unspent appropriations are returned to the Province's Consolidated Revenue Fund each year. As the voted appropriation is prepared on a modified cash basis, an excess or deficiency of revenue over expenses arises from the application of accrual accounting, including the capitalization and amortization of tangible capital assets, the deferral and amortization of the lease inducement and the recognition of employee benefits expenses earned to date but that will be funded from future appropriations.

The voted appropriation for statutory expenses is intended to cover the salary of the Auditor General as well as the costs of any expert advice or assistance required to help the Office meet its responsibilities under the *Government Advertising Act* and the *Fiscal Transparency and Accountability Act*, or to conduct special assignments under Section 17 of the *Auditor General Act*.

Office of the Auditor General of Ontario

Notes to Financial Statements
For the Year Ended March 31, 2015

2. Summary of Significant Accounting Policies (Continued)

(C) TANGIBLE CAPITAL ASSETS

Tangible capital assets are recorded at historical cost less accumulated amortization. Amortization of tangible capital assets is recorded on the straight-line method over the estimated useful lives of the assets as follows:

Computer hardware	3 years
Computer software	3 years
Furniture and fixtures	5 years
Leasehold improvements	The remaining term of the lease

(D) FINANCIAL INSTRUMENTS

The Office's financial assets and financial liabilities are accounted for as follows:

- Cash is subject to an insignificant risk of change in value so carrying value approximates fair value.
- Due from Consolidated Revenue Fund is recorded at cost.
- Accounts payable and accrued liabilities are recorded at cost.
- Accrued employee benefits obligation is recorded at cost based on the entitlements earned by employees up to March 31, 2015. A fair value estimate based on actuarial assumptions about when these benefits will actually be paid has not been made as it is not expected that there would be a significant difference from the recorded amount.

It is management's opinion that the Office is not exposed to any interest rate, currency, liquidity or credit risk arising from its financial instruments due to their nature.

(E) DEFERRED LEASE INDUCEMENT

The deferred lease inducement is being amortized as a reduction of rent expense on a straight-line basis over the 10-year lease period that commenced November 1, 2011.

(F) MEASUREMENT UNCERTAINTY

The preparation of financial statements in accordance with Canadian public sector accounting standards requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period. Items requiring the use of significant estimates include: useful life of tangible capital assets and accrued employee benefits obligation.

Estimates are based on the best information available at the time of preparation of the financial statements and are reviewed annually to reflect new information as it becomes available. Measurement uncertainty exists in these financial statements. Actual results could differ from these estimates. These estimates and assumptions are reviewed periodically, and adjustments are reported in the Statement of Operations and Accumulated Deficit in the year in which they become known.

Office of the Auditor General of Ontario

Notes to Financial Statements
For the Year Ended March 31, 2015

3. Tangible Capital Assets

	Computer hardware $	Computer software $	Furniture and fixtures $	Leasehold improvements $	2015 Total $
Cost					
Balance, beginning of year	711,086	336,676	219,882	437,338	1,704,982
Additions	128,246	39,977	61,402	549,525	779,150
Write-off of fully amortized assets	(106,293)	(180,559)	(44,141)	-	(330,993)
Balance, end of year	733,039	196,094	237,143	986,863	2,153,139
Accumulated amortization					
Balance, beginning of year	424,820	272,149	116,377	53,846	867,192
Amortization	182,333	50,522	36,107	90,384	359,346
Write-off of fully amortized assets	(106,293)	(180,559)	(44,141)	-	(330,993)
Balance, end of year	500,860	142,112	108,343	144,230	895,545
Net Book Value, March 31, 2015	232,179	53,982	128,800	842,632	1,257,594

	Computer hardware $	Computer software $	Furniture and fixtures $	Leasehold improvements $	2014 Total $
Cost					
Balance, beginning of year	678,777	396,107	146,025	163,341	1,384,250
Additions	195,446	8,481	95,257	273,997	573,181
Write-off of fully amortized assets	(163,137)	(67,912)	(21,400)	-	(252,449)
Balance, end of year	711,086	336,676	219,882	437,338	1,704,982
Accumulated amortization					
Balance, beginning of year	401,217	259,341	107,739	19,838	788,135
Amortization	186,740	80,720	30,038	34,008	331,506
Write-off of fully amortized assets	(163,137)	(67,912)	(21,400)	-	(252,449)
Balance, end of year	424,820	272,149	116,377	53,846	867,192
Net Book Value, March 31, 2014	286,266	64,527	103,505	383,492	837,790

Office of the Auditor General of Ontario

Notes to Financial Statements
For the Year Ended March 31, 2015

4. Accounts Payable and Accrued Liabilities

	2015 $	2014 $
Accounts payable	381,328	525,600
Accrued salaries and benefits	527,941	538,423
Accrued severance, vacation and other credits	883,000	1,193,000
	1,792,269	2,257,023

Accounts payable relates largely to normal business transactions with third-party vendors and is subject to standard commercial terms. Accruals for salaries and benefits and severance, vacation and other credits are recorded based on employment arrangements and legislated entitlements.

5. Obligation for Employee Future Benefits

Although the Office's employees are not members of the Ontario Public Service, under provisions in the *Auditor General Act*, the Office's employees are entitled to the same benefits as Ontario Public Service employees. The future liability for benefits earned by the Office's employees is included in the estimated liability for all provincial employees that have earned these benefits and is recognized in the Province's consolidated financial statements. In the Office's financial statements, these benefits are accounted for as follows:

(A) PENSION BENEFITS

The Office's employees participate in the Public Service Pension Fund (PSPF) which is a defined benefit pension plan for employees of the Province and many provincial agencies. The Province of Ontario, which is the sole sponsor of the PSPF, determines the Office's annual payments to the fund. As the sponsor is responsible for ensuring that the pension funds are financially viable, any surpluses or unfunded liabilities arising from statutory actuarial funding valuations are not assets or obligations of the Office. The Office's required annual payment of $723,315 (2014 - $742,024), is included in employee benefits expense in the Statement of Operations and Accumulated Deficit.

(B) ACCRUED EMPLOYEE BENEFITS OBLIGATION

The costs of legislated severance, compensated absences and unused vacation entitlements earned by employees during the year amounted to $151,000 (2014 – $291,000) and are included in employee benefits in the Statement of Operations and Accumulated Deficit. The total liability for these costs is reflected in the accrued employee benefits obligation, less any amounts payable within one year, which are included in accounts payable and accrued liabilities, as follows:

Office of the Auditor General of Ontario

Notes to Financial Statements
For the Year Ended March 31, 2015

5. Obligation for Future Employee Benefits (Continued)

(B) ACCRUED EMPLOYEE BENEFITS OBLIGATION

	2015 $	2014 $
Total liability for severance and vacation credits	3,360,000	3,421,000
Less: Due within one year and included in accounts payable and accrued liabilities	883,000	1,193,000
Accrued employee benefits obligation	2,477,000	2,228,000

(C) OTHER NON-PENSION POST-EMPLOYMENT BENEFITS

The cost of other non-pension post-retirement benefits is determined and funded on an ongoing basis by the Ontario Ministry of Government Services and accordingly is not included in these financial statements.

6. Commitments

The Office has an operating lease to rent premises which expires on October 31, 2021. The minimum rental commitment for the remaining term of the lease is as follows:

	$
2015–16	501,300
2016–17	508,800
2017–18	514,200
2018–19	521,700
2019–20	527,100
2020–21 and beyond	849,000

The Office is also committed to pay its proportionate share of realty taxes and operating expenses for the premises amounting to approximately $519,000 during 2015 (2014 - $546,000).

7. Public Sector Salary Disclosure Act, 1996

Section 3(5) of this Act requires disclosure of the salary and benefits paid to all Ontario public-sector employees earning an annual salary in excess of $100,000. This disclosure for the 2014 calendar year is as follows:

Office of the Auditor General of Ontario

Notes to Financial Statements
For the Year Ended March 31, 2015

7. Public Sector Salary Disclosure Act, 1996 (Continued)

Name	Position	Salary $	Taxable Benefits $
Lysyk, Bonnie	Auditor General	253,580	3,972
Peall, Gary	Deputy Auditor General	190,974	297
Chagani, Gus	Assistant Auditor General	127,103	219
Chiu, Rudolph	Assistant Auditor General	144,973	234
Klein, Susan	Assistant Auditor General	147,952	234
Bell, Laura	Director	127,103	219
Chan, Sandy	Director	121,624	192
Cho, Kim	Director	113,280	190
Fitzmaurice, Gerard	Director	147,952	234
Gotsis, Vanna	Director	126,242	205
Mazzone, Vince	Director	144,973	234
McDowell, John	Director	144,973	234
Pelow, William	Director	126,242	205
Stavropoulos, Nick	Director	119,214	192
Yip, Gigi	Director	116,332	192
Allan, Walter	Audit Manager	117,291	190
Bove, Tino	Audit Manager	110,172	179
Carello, Teresa	Audit Manager	117,291	190
Cumbo, Wendy	Audit Manager	117,291	190
Herberg, Naomi	Audit Manager	119,446	190
Jaffer, Zahra	Audit Manager	102,604	177
MacNeil, Richard	Audit Manager	117,291	190
Rogers, Fraser	Audit Manager	117,291	190
Sin, Vivian	Audit Manager	117,291	190
Tsikritsis, Emanuel	Audit Manager	117,291	190
Young, Denise	Audit Manager	117,291	190
Muhammad, Shariq	Information Technology and Supply Chain Manager	101,913	174
Pedias, Christine	Manager, Corporate Communications and Government Advertising Review	104,735	180
Sturrock, Barbara	Manager, Human Resources	116,822	183
Yosipovich, Rebecca	Standards and Research Manager	105,561	182
Randoja, Tina	Editorial and Communications Coordinator	100,694	168
Beben, Izabela	Audit Supervisor	100,523	173
Chatzidimos, Tom	Audit Supervisor	102,065	176
Gupta, Tanmay	Audit Supervisor	111,011	178
Patel, Ruchir	Audit Supervisor	103,223	174
Romano, Mary	Audit Supervisor	100,461	174
Tepelenas, Ellen	Audit Supervisor	109,503	179
Ulisse, Dora	Audit Supervisor	102,753	177
Wanchuk, Brian	Audit Supervisor	107,498	179

Office of the Auditor General of Ontario

Notes to Financial Statements
For the Year Ended March 31, 2015

8. Reconciliation to Public Accounts Volume 1 Basis of Presentation

The Office's Statement of Expenses presented in Volume 1 of the Public Accounts of Ontario was prepared on a basis consistent with the accounting policies followed for the preparation of the Estimates submitted for approval to the Board of Internal Economy, under which purchases of computers and software are expensed in the year of acquisition rather than being capitalized and amortized over their useful lives. Volume 1 also excludes the accrued obligation for employee future benefits and deferred lease inducement recognized in these financial statements. A reconciliation of total expenses reported in Volume 1 to the total expenses reported in these financial statements is as follows:

	2015 $	2014 $
Total expenses per Public Accounts Volume 1	16,392,807	15,779,943
purchase of capital assets	(779,150)	(573,181)
amortization of capital assets	359,346	331,506
receipt of lease inducement	322,225	-
change in accrued future employee benefit costs	(61,000)	85,000
amortization of deferred lease inducement	(32,223)	(32,223)
	(190,802)	(188,898)
Total expenses per the Statement of Operations and Accumulated Deficit	16,202,005	15,591,045

Office of the Auditor General of Ontario

Notes to Financial Statements
For the Year Ended March 31, 2015

9. Expenses by Activity

	2015				
	Salaries and Benefits	Other Operating Expenses	Statutory Expenses	Total	%
Value for money and special audits	8,210,259	2,510,725	550,319	11,271,303	69.5
Financial statement audits	2,878,631	1,864,968	29,415	4,773,014	29.5
Government advertising	112,009	27,055	18,624	157,688	1.0
	11,200,899	4,402,748	598,358	16,202,005	100.0
%	69.1	27.2	3.7	100.0	

	2014				
	Salaries and Benefits	Other Operating Expenses	Statutory Expenses	Total	%
Value for money and special audits	7,916,470	2,079,530	363,027	10,359,027	66.4
Financial statement audits	3,334,444	1,697,030	55,210	5,086,684	32.6
Government advertising	90,734	20,746	33,854	145,334	1.0
	11,341,648	3,797,306	452,091	15,591,045	100.0
%	72.7	24.4	2.9	100.0	

Expenses have been allocated to the Office's three main activities based primarily on the hours charged to each activity as recorded by staff in the Office's time accounting system, including administrative time and overhead costs that could not otherwise be identified with a specific activity. Expenses incurred for only one activity, such as most travel costs and professional services, are allocated to that activity based on actual billings.

Office of the Auditor General of Ontario

Notes to Financial Statements
For the Year Ended March 31, 2015

10. Deferred Lease Inducement and Receivable

As part of the lease arrangements for its office premises, the Office negotiated a lease inducement of $322,225 to be applied to future accommodation costs. This deferred lease inducement is being amortized as a reduction of rent expense on a straight-line basis over the 10-year lease period that commenced November 1, 2011. The Office received payment for the lease inducement in 2015.

11. Unused Appropriations

	2015 $	2014 $
Consolidated Revenue Fund – Voted appropriations [Note 2(B)]	16,520,400	16,426,700
Less: Appropriations received from the Province	16,360,585	15,747,720
Unused Appropriations	159,815	678,980

	2015 $	2014 $
Funding not requested	97,628	665,851
Cash returned to (due from) the Province	29,964	(19,094)
Adjustment for amortization of deferred lease inducement	32,223	32,223
	159,815	678,980

12. Budgeted Figures

Budgeted figures were approved by the Board of Internal Economy and were prepared on a modified cash basis of accounting for presentation in Volume 1 of the Public Accounts of Ontario. This differs from Public Sector Accounting Standards, as discussed in Note 8.

13. Comparative Figures

Certain comparative figures have been reclassified to conform to the current basis of the financial statement presentation.

Exhibit 1

Agencies of the Crown

1. Agencies whose accounts are audited by the Auditor General

Agricorp
Algonquin Forestry Authority
Cancer Care Ontario
Centennial Centre of Science and Technology
Chief Electoral Officer, *Election Finances Act*
Election Fees and Expenses, *Election Act*
Financial Services Commission of Ontario
Grain Financial Protection Board, Funds for Producers of Grain Corn, Soybeans, Wheat and Canola
Investor Education Fund, Ontario Securities Commission
Legal Aid Ontario
Liquor Control Board of Ontario
Livestock Financial Protection Board, Fund for Livestock Producers
Motor Vehicle Accident Claims Fund
Northern Ontario Heritage Fund Corporation
Office of the Assembly
Office of the Children's Lawyer
Office of the Environmental Commissioner
Office of the Information and Privacy Commissioner
Office of the Ombudsman
Ontario Clean Water Agency (December 31)*
Ontario Educational Communications Authority
Ontario Electricity Financial Corporation
Ontario Energy Board
Ontario Financing Authority
Ontario Food Terminal Board
Ontario Heritage Trust
Ontario Immigrant Investor Corporation
Ontario Media Development Corporation
Ontario Mortgage and Housing Corporation
Ontario Northland Transportation Commission
Ontario Place Corporation (December 31)*
Ontario Racing Commission
Ontario Securities Commission
Pension Benefits Guarantee Fund, Financial Services Commission of Ontario
Province of Ontario Council for the Arts
Provincial Advocate for Children and Youth
Provincial Judges Pension Fund, Provincial Judges Pension Board
Public Guardian and Trustee for the Province of Ontario

2. Agencies whose accounts are audited by another auditor under the direction of the Auditor General

Niagara Parks Commission (October 31)*
St. Lawrence Parks Commission
Workplace Safety and Insurance Board (December 31)*

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* Dates in parentheses indicate fiscal periods ending on a date other than March 31.

Exhibit 2

Crown-controlled Corporations

Corporations whose accounts are audited by an auditor other than the Auditor General, with full access by the Auditor General to audit reports, working papers and other related documents as required

Agricultural Research Institute of Ontario
Board of Funeral Services
Central East Local Health Integration Network
Central Local Health Integration Network
Central West Local Health Integration Network
Champlain Local Health Integration Network
Deposit Insurance Corporation of Ontario (December 31)*
Education Quality and Accountability Office
eHealth Ontario
Erie St. Clair Local Health Integration Network
Forest Renewal Trust
Hamilton Niagara Haldimand Brant Local Health Integration Network
HealthForceOntario Marketing and Recruitment Agency
Higher Education Quality Council of Ontario
Human Rights Legal Support Centre
Hydro One Inc. (December 31)*
Independent Electricity System Operator (December 31)*
McMichael Canadian Art Collection
Metrolinx
Metropolitan Toronto Convention Centre Corporation
Mississauga Halton Local Health Integration Network
Municipal Property Assessment Corporation (December 31)*
North East Local Health Integration Network
North Simcoe Muskoka Local Health Integration Network
North West Local Health Integration Network
Ontario Capital Growth Corporation
Ontario French-language Educational Communications Authority
Ontario Health Quality Council
Ontario Infrastructure and Lands Corporation
Ontario Lottery and Gaming Corporation
Ontario Pension Board (December 31)*
Ontario Power Authority (December 31)*
Ontario Power Generation Inc. (December 31)*
Ontario Tourism Marketing Partnership Corporation
Ontario Trillium Foundation
Ottawa Convention Centre Corporation
Owen Sound Transportation Company Limited
Public Health Ontario
Royal Ontario Museum
Science North
South East Local Health Integration Network
South West Local Health Integration Network
Toronto Central Local Health Integration Network
Toronto Islands Residential Community Trust Corporation
Toronto Organizing Committee for the 2015 Pan American and Parapan American Games (TO2015)
Toronto Waterfront Revitalization Corporation
Trillium Gift of Life Network
Walkerton Clean Water Centre
Waterloo Wellington Local Health Integration Network

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* Dates in parentheses indicate fiscal periods ending on a date other than March 31.

Exhibit 3

Organizations in the Broader Public Sector

Broader-public-sector organizations whose accounts are audited by an auditor other than the Auditor General, with full access by the Auditor General to audit reports, working papers and other related documents as required*

PUBLIC HOSPITALS (MINISTRY OF HEALTH AND LONG-TERM CARE)

Alexandra Hospital Ingersoll
Alexandra Marine & General Hospital
Almonte General Hospital
Anson General Hospital
Arnprior Regional Health
Atikokan General Hospital
Baycrest Centre for Geriatric Care
Bingham Memorial Hospital
Blind River District Health Centre
Bluewater Health
Brant Community Healthcare System
Brockville General Hospital
Bruyère Continuing Care Inc.
Cambridge Memorial Hospital
Campbellford Memorial Hospital
Carleton Place and District Memorial Hospital
Casey House Hospice
Chatham Kent Health Alliance
Children's Hospital of Eastern Ontario
Clinton Public Hospital
Collingwood General and Marine Hospital
Cornwall Community Hospital
Deep River and District Hospital Corporation
Dryden Regional Health Centre
Englehart and District Hospital Inc.
Espanola General Hospital
Four Counties Health Services
Georgian Bay General Hospital
Geraldton District Hospital
Grand River Hospital
Grey Bruce Health Services
Groves Memorial Community Hospital
Guelph General Hospital
Haldimand War Memorial Hospital
Haliburton Highlands Health Services Corporation
Halton Healthcare Services Corporation
Hamilton Health Sciences Corporation
Hanover & District Hospital
Headwaters Health Care Centre
Health Sciences North
Holland Bloorview Kids Rehabilitation Hospital
Hôpital Général de Hawkesbury and District General Hospital Inc.
Hôpital Glengarry Memorial Hospital
Hôpital Montfort
Hôpital Notre Dame Hospital (Hearst)
Hornepayne Community Hospital
Hospital for Sick Children
Hôtel-Dieu Grace Healthcare
Hôtel-Dieu Hospital, Cornwall
Humber River Regional Hospital
Joseph Brant Hospital
Kemptville District Hospital
Kingston General Hospital
Kirkland and District Hospital
Lady Dunn Health Centre
Lady Minto Hospital at Cochrane
Lake of the Woods District Hospital

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* This exhibit only includes the more financially significant organizations in the broader public sector.

Lakeridge Health
Leamington District Memorial Hospital
Lennox and Addington County General Hospital
Listowel Memorial Hospital
London Health Sciences Centre
Mackenzie Health
Manitoulin Health Centre
Manitouwadge General Hospital
Markham Stouffville Hospital
Mattawa General Hospital
McCausland Hospital
Muskoka Algonquin Healthcare
Niagara Health System
Nipigon District Memorial Hospital
Norfolk General Hospital
North Bay Regional Health Centre
North Wellington Health Care Corporation
North York General Hospital
Northumberland Hills Hospital
Orillia Soldiers' Memorial Hospital
Ottawa Hospital
Pembroke Regional Hospital Inc.
Perth and Smiths Falls District Hospital
Peterborough Regional Health Centre
Providence Care Centre (Kingston)
Providence Healthcare
Queensway Carleton Hospital
Quinte Healthcare Corporation
Red Lake Margaret Cochenour Memorial Hospital Corporation
Religious Hospitallers of St. Joseph of the Hotel Dieu of Kingston
Religious Hospitallers of St. Joseph of the Hotel Dieu of St. Catharines
Renfrew Victoria Hospital
Riverside Health Care Facilities Inc.
Ross Memorial Hospital
Rouge Valley Health System
Royal Victoria Regional Health Centre
Runnymede Healthcare Centre
Salvation Army Toronto Grace Health Centre
Sault Area Hospital
Scarborough Hospital
Seaforth Community Hospital
Sensenbrenner Hospital
Services de santé de Chapleau Health Services
Sinai Health System
Sioux Lookout Meno Ya Win Health Centre
Smooth Rock Falls Hospital
South Bruce Grey Health Centre
South Huron Hospital Association
Southlake Regional Health Centre
St. Francis Memorial Hospital
St. Joseph's Care Group
St. Joseph's Continuing Care Centre of Sudbury
St. Joseph's General Hospital, Elliot Lake
St. Joseph's Health Care, London
St. Joseph's Health Centre (Guelph)
St. Joseph's Health Centre (Toronto)
St. Joseph's Healthcare Hamilton
St. Mary's General Hospital
St. Mary's Memorial Hospital
St. Michael's Hospital
St. Thomas Elgin General Hospital
Stevenson Memorial Hospital
Stratford General Hospital
Strathroy Middlesex General Hospital
Sunnybrook Health Sciences Centre
Temiskaming Hospital
Thunder Bay Regional Health Sciences Centre
Tillsonburg District Memorial Hospital
Timmins and District Hospital
Toronto East General Hospital
Trillium Health Partners
University Health Network
University of Ottawa Heart Institute
Weeneebayko Area Health Authority
West Haldimand General Hospital
West Nipissing General Hospital
West Park Healthcare Centre
West Parry Sound Health Centre
William Osler Health System
Wilson Memorial General Hospital
Winchester District Memorial Hospital
Windsor Regional Hospital
Wingham and District Hospital
Women's College Hospital
Woodstock General Hospital Trust

SPECIALTY PSYCHIATRIC HOSPITALS (MINISTRY OF HEALTH AND LONG-TERM CARE)

Centre for Addiction and Mental Health
Ontario Shores Centre for Mental Health Sciences
Royal Ottawa Health Care Group
Waypoint Centre for Mental Health Care

CHILDREN'S AID SOCIETIES (MINISTRY OF CHILDREN AND YOUTH SERVICES)

Akwesasne Child and Family Services
Anishinaabe Abinoojii Family Services
Brant Family and Children's Services
Bruce Grey Child and Family Services
Catholic Children's Aid Society of Hamilton
Catholic Children's Aid Society of Toronto
Chatham Kent Children's Services
Children's Aid Society of Algoma
Children's Aid Society of Haldimand and Norfolk
Children's Aid Society of Hamilton
Children's Aid Society of London and Middlesex
Children's Aid Society Nipissing and Parry Sound
Children's Aid Society of Ottawa
Children's Aid Society of Oxford County
Children's Aid Society of Simcoe County
Children's Aid Society of the Districts of Sudbury and Manitoulin
Children's Aid Society of the District of Thunder Bay
Children's Aid Society of Toronto
Children's Aid Society of the United Counties of Stormont, Dundas and Glengarry
Dilico Anishinabek Family Care
Dufferin Child and Family Services
Durham Children's Aid Society
Family and Children's Services of Frontenac, Lennox and Addington
Family and Children's Services of Guelph and Wellington County
Family and Children's Services of Lanark, Leeds and Grenville
Family and Children's Services Niagara
Family and Children's Services of Renfrew County
Family & Children's Services of St. Thomas and Elgin
Family and Children's Services of the Region of Waterloo
Family, Youth and Child Services of Muskoka
Family Services York Region
Halton Children's Aid Society
Highland Shores Children's Aid
Huron-Perth Children's Aid Society
Jewish Family and Child Service of Greater Toronto
Kawartha-Haliburton Children's Aid Society
Kenora-Rainy River Districts Child and Family Services
Kina Gbezhgomi Child and Family Services
Kunuwanimano Child and Family Services
Native Child and Family Services of Toronto
North Eastern Ontario Family and Children's Services
Payukotayno James and Hudson Bay Family Services
Peel Children's Aid Society
Sarnia-Lambton Children's Aid Society
Tikinagan Child and Family Services
Valoris for Children and Adults of Prescott-Russell
Weechi-it-te-win Family Services
Windsor-Essex Children's Aid Society

COMMUNITY CARE ACCESS CENTRES (MINISTRY OF HEALTH AND LONG-TERM CARE)

Central Community Care Access Centre
Central East Community Care Access Centre
Central West Community Care Access Centre
Champlain Community Care Access Centre
Erie St. Clair Community Care Access Centre
Hamilton Niagara Haldimand Brant Community Care Access Centre
Mississauga Halton Community Care Access Centre
North East Community Care Access Centre
North Simcoe Muskoka Community Care Access Centre
North West Community Care Access Centre
South East Community Care Access Centre
South West Community Care Access Centre
Toronto Central Community Care Access Centre
Waterloo Wellington Community Care Access Centre

SCHOOL BOARDS (MINISTRY OF EDUCATION)

Algoma District School Board
Algonquin and Lakeshore Catholic District School Board
Avon Maitland District School Board
Bloorview MacMillan School Authority
Bluewater District School Board
Brant Haldimand Norfolk Catholic District School Board
Bruce-Grey Catholic District School Board
Campbell Children's School Authority
Catholic District School Board of Eastern Ontario
Conseil des écoles publiques de l'Est de l'Ontario
Conseil scolaire catholique Providence
Conseil scolaire de district catholique Centre-Sud
Conseil scolaire de district catholique de l'Est ontarien
Conseil scolaire de district catholique des Aurores boréales
Conseil scolaire de district catholique des Grandes Rivières
Conseil scolaire de district catholique du Centre-Est de l'Ontario
Conseil scolaire de district catholique du Nouvel-Ontario
Conseil scolaire de district catholique Franco-Nord
Conseil scolaire de district du Grand Nord de l'Ontario
Conseil scolaire de district du Nord-Est de l'Ontario
Conseil scolaire Viamonde
District School Board of Niagara
District School Board Ontario North East
Dufferin-Peel Catholic District School Board
Durham Catholic District School Board
Durham District School Board
Grand Erie District School Board
Greater Essex County District School Board
Halton Catholic District School Board
Halton District School Board
Hamilton-Wentworth Catholic District School Board
Hamilton-Wentworth District School Board
Hastings and Prince Edward District School Board
Huron-Perth Catholic District School Board
Huron-Superior Catholic District School Board
James Bay Lowlands Secondary School Board
John McGivney Children's Centre School Authority
Kawartha Pine Ridge District School Board
Keewatin-Patricia District School Board
Kenora Catholic District School Board
KidsAbility School Authority
Lakehead District School Board
Lambton Kent District School Board
Limestone District School Board
London District Catholic School Board
Moose Factory Island District School Area Board
Moosonee District School Area Board
Near North District School Board
Niagara Catholic District School Board
Niagara Peninsula Children's Centre School Authority
Nipissing-Parry Sound Catholic District School Board
Northeastern Catholic District School Board
Northwest Catholic District School Board
Ottawa Catholic District School Board
Ottawa Children's Treatment Centre School Authority
Ottawa-Carleton District School Board
Peel District School Board
Penetanguishene Protestant Separate School Board
Peterborough Victoria Northumberland and Clarington Catholic District School Board
Rainbow District School Board
Rainy River District School Board
Renfrew County Catholic District School Board
Renfrew County District School Board
Simcoe County District School Board
Simcoe Muskoka Catholic District School Board
St. Clair Catholic District School Board
Sudbury Catholic District School Board
Superior North Catholic District School Board
Superior-Greenstone District School Board
Thames Valley District School Board
Thunder Bay Catholic District School Board
Toronto Catholic District School Board

Toronto District School Board
Trillium Lakelands District School Board
Upper Canada District School Board
Upper Grand District School Board
Waterloo Catholic District School Board
Waterloo Region District School Board
Wellington Catholic District School Board
Windsor-Essex Catholic District School Board
York Catholic District School Board
York Region District School Board

COLLEGES (MINISTRY OF TRAINING, COLLEGES AND UNIVERSITIES)

Algonquin College of Applied Arts and Technology
Cambrian College of Applied Arts and Technology
Canadore College of Applied Arts and Technology
Centennial College of Applied Arts and Technology
Collège Boréal d'arts appliqués et de technologie
Collège d'arts appliqués et de technologie La Cité collégiale
Conestoga College Institute of Technology and Advanced Learning
Confederation College of Applied Arts and Technology
Durham College of Applied Arts and Technology
Fanshawe College of Applied Arts and Technology
George Brown College of Applied Arts and Technology
Georgian College of Applied Arts and Technology
Humber College Institute of Technology and Advanced Learning
Lambton College of Applied Arts and Technology
Loyalist College of Applied Arts and Technology
Mohawk College of Applied Arts and Technology
Niagara College of Applied Arts and Technology
Northern College of Applied Arts and Technology
Sault College of Applied Arts and Technology
Seneca College of Applied Arts and Technology
Sheridan College Institute of Technology and Advanced Learning
Sir Sandford Fleming College of Applied Arts and Technology
St. Clair College of Applied Arts and Technology
St. Lawrence College of Applied Arts and Technology

Exhibit 4

Treasury Board Orders

Under subsection 12(2)(e) of the *Auditor General Act*, the Auditor General is required to annually report all orders of the Treasury Board made to authorize payments in excess of appropriations, stating the date of each order, the amount authorized and the amount expended. These are outlined in the following table. Although ministries may track expenditures related to these orders in more detail by creating accounts at the sub-vote and item level, this schedule summarizes such expenditures at the vote and item level.

Ministry	Date of Order	Authorized ($)	Expended ($)
Aboriginal Affairs	Nov 25, 2014	50,000	–
	Mar 24, 2015	2,620,000	915,000
	Mar 24, 2015	3,300,000	3,298,000
	Mar 24, 2015	250,000	–
	Apr 14, 2015	174,000	89,819
		6,394,000	**4,302,819**
Agriculture, Food and Rural Affairs	Mar 9, 2015	**8,000,000**	**1,059,146**
Attorney General	Mar 2, 2015	25,000	24,480
	Mar 3, 2015	20,205,700	15,260,639
	Mar 24, 2015	3,483,500	3,483,500
	Apr 15, 2015	3,110,000	2,946,505
		26,824,200	**21,715,124**
Cabinet Office	Oct 2, 2014	5,000,000	5,000,000
	Oct 20, 2014	3,000,000	3,000,000
	Nov 4, 2014	5,000,000	2,027,789
		13,000,000	**10,027,789**
Children and Youth Services	Oct 21, 2014	1,928,000	–
	Mar 24, 2015	1,550,000	–
	Mar 24, 2015	6,501,200	–
		9,979,200	**–**
Citizenship, Immigration and International Trade	Nov 25, 2014	2,700,000	–
	Mar 24, 2015	3,975,100	2,566,547
	Mar 24, 2015	1,316,300	583,467
		7,991,400	**3,150,014**

Ministry	Date of Order	Authorized ($)	Expended ($)
Community and Social Services	Jul 22, 2014	19,289,000	19,289,000
	Sep 9, 2014	7,867,100	3,782,138
	Mar 24, 2015	3,692,200	3,032,545
	Mar 25, 2015	6,970,000	2,900,000
		37,818,300	**29,003,683**
Community Safety and Correctional Services	Mar 3, 2015	**68,885,800**	**63,502,139**
Economic Development, Employment and Infrastructure	Aug 13, 2014	14,705,900	–
	Oct 21, 2014	8,800,000	–
	Dec 9, 2014	11,000,000	11,000,000
	Dec 18, 2014	252,000,000	252,000,000
	Jan 26, 2015	6,936,000	1,118,501
	Mar 24, 2015	65,000,000	18,805,400
	Mar 24, 2015	50,000	–
		358,491,900	**282,923,901**
Education	Nov 25, 2014	800,000	–
	Mar 3, 2015	13,067,900	12,568,689
	Mar 24, 2015	22,000	–
	Mar 24, 2015	1,555,700	286,487
		15,445,600	**12,855,176**
Environment and Climate Change	Mar 3, 2015	**9,816,200**	**9,616,034**
Finance	Oct 7, 2014	117,552,400	–
	Nov 25, 2014	856,200	–
	Dec 9, 2014	4,250,000	–
	Dec 17, 2014	211,805,600	–
	Dec 18, 2014	2,499,000	90,833
	Jan 26, 2015	474,091,400	–
	Feb 5, 2015	4,301,300	2,481,672
	Mar 24, 2015	442,086,400	–
	Mar 24, 2015	60,186,900	60,186,900
	Mar 24, 2015	1,914,400	–
	Jul 21, 2015	364,000,000	303,813,100
		1,683,543,600	**366,572,505**
Government and Consumer Services	Nov 17, 2014	168,500	168,500
	Dec 9, 2014	6,390,300	2,798,048
	Feb 4, 2015	22,025,400	16,262,110
	Mar 24, 2015	3,350,000	1,335,381
		31,934,200	**20,564,039**
Health and Long-Term Care	Feb 17, 2015	1,484,671,700	1,424,054,129
	Mar 24, 2015	150,000	–
	Mar 24, 2015	297,665,900	280,762,174
		1,782,487,600	**1,704,816,303**

Ministry	Date of Order	Authorized ($)	Expended ($)
Labour	Nov 17, 2014	157,800	–
	Apr 27, 2015	45,000	–
		202,800	**–**
Lieutenant Governor	Mar 3, 2015	**125,000**	**78,143**
Municipal Affairs and Housing	Nov 4, 2014	7,800,000	7,800,000
	Jan 26, 2015	21,769,800	20,423,787
	Mar 3, 2015	5,800,000	1,947,150
		35,369,800	**30,170,937**
Natural Resources and Forestry	Sep 9, 2014	15,000,000	9,789,242
	Mar 24, 2015	8,926,300	3,246,155
		23,926,300	**13,035,397**
Northern Development and Mines	Mar 24, 2015	**1,505,800**	**1,309,189**
Office of Francophone Affairs	Sep 9, 2014	1,099,500	1,099,500
	Mar 3, 2015	75,000	75,000
	Mar 24, 2015	330,000	96,879
		1,504,500	**1,271,379**
Tourism, Culture and Sport	Nov 25, 2014	1,881,200	1,881,200
	Nov 25, 2014	5,048,000	3,171,684
	Jan 16, 2015	20,310,000	19,441,481
	Mar 23, 2015	1,219,200	609,443
	Mar 24, 2015	22,099,300	22,099,194
	Mar 24, 2015	7,185,900	4,242,009
		57,743,600	**51,445,011**
Training, Colleges and Universities	Aug 13, 2014	8,340,000	–
	Mar 5, 2015	1,000,000	–
	Mar 6, 2015	7,570,800	–
	Mar 24, 2015	15,499,000	4,566,600
	Mar 24, 2015	65,101,800	–
	Mar 24, 2015	5,255,900	–
	Apr 14, 2015	500,000	349,715
		103,267,500	**4,916,315**
Transportation	Dec 1, 2014	250,000	224,293
	Mar 31, 2015	6,700,000	1,723,591
		6,950,000	**1,947,884**
Total Treasury Board Orders		**4,291,207,300**	**2,634,282,927**

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